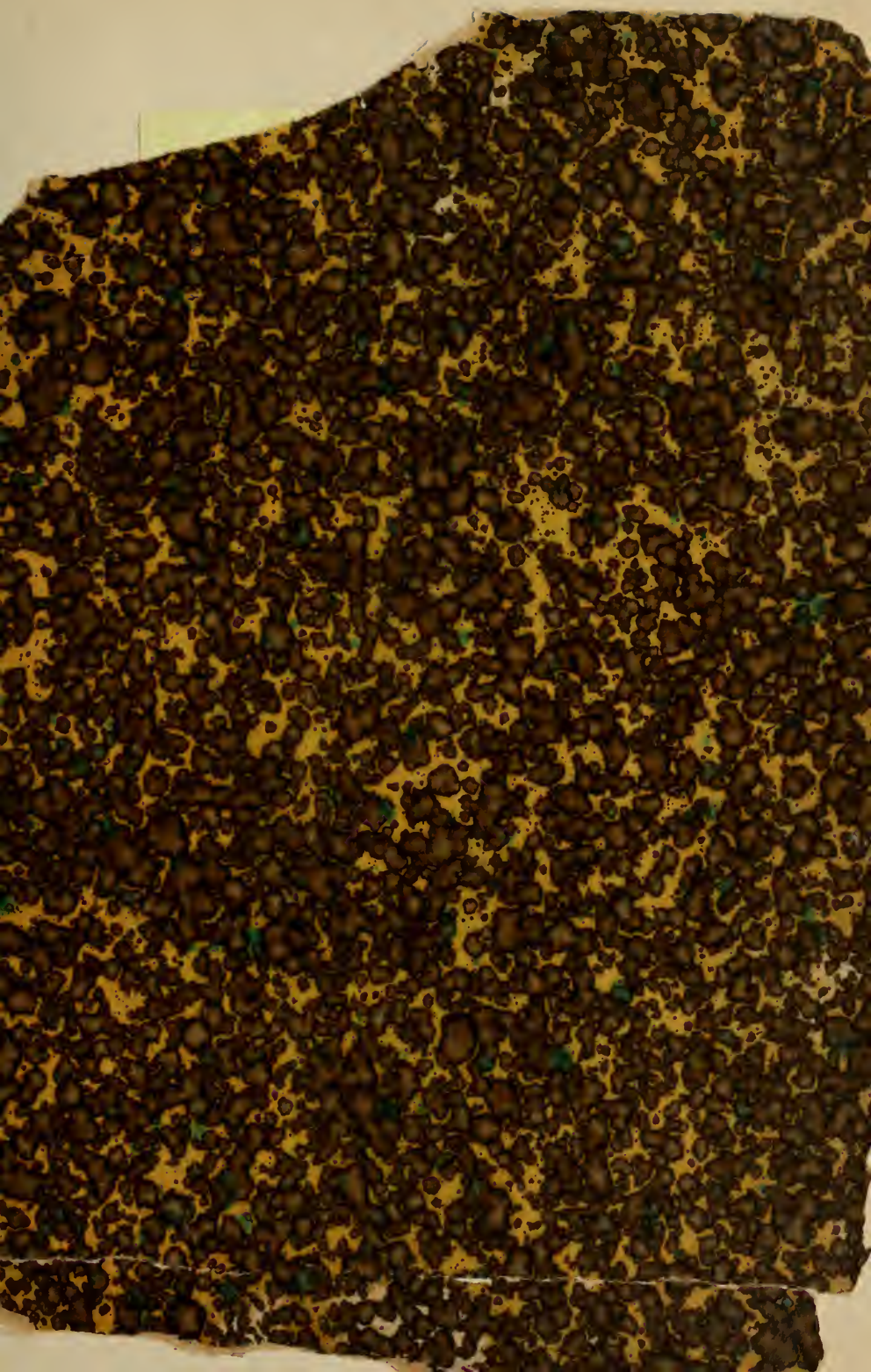


THE UNIVERSITY
OF ILLINOIS
LIBRARY

540.5

AC

v.21-50 Index



The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.

To renew call Telephone Center, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

JAN 04 1988

SEP 18 1984

DUE 2/1/91

FEB 11 1991

DUE 4/1/95

JAN 06 1995

L161—O-1096

GENERAL INDEX

OF VOLUMES XXI-L

OF THE

AMERICAN CHEMICAL JOURNAL

1899-1913

CHARLES A. ROUILLER

Assistant Editor

BALTIMORE

1914

ESCHENBACH PRINTING COMPANY, PRINTERS,
EASTON, PA.

A C

v. 21-50

Sunday

PREFACE

In the Index of Authors, papers by the same author are arranged chronologically, without respect to the alphabetical order of his coworkers' names.

In the Index of Subjects such words as *benzol*, *oxy*, etc., have been changed to *benzene*, *hydroxy*, etc.; the final "o" has always been retained in such prefixes as *chloro*, *bromo*, *mono*, etc.; methyl and ethyl esters have been entered under the name of the acid; in the names of compounds containing several substituents, the latter have been arranged, according to the nature of the atom in the substituent which is joined directly to the parent substance, in the order C, O, N, Cl, Br, I, F, S, P (thus, methyl, phenyl, keto, methoxy, amino, nitro, chloro, bromo, iodo, fluoro, mercapto, etc.). All translations, reprints, notes and reports based on articles published elsewhere have been grouped together under "Reports," book reviews under "Reviews," obituary notices under "Obituaries."

AUTHORS

ABDERHALDEN, E., <i>Hall, W. T., and Defren, G.</i> Text-book of physiological chemistry (Review).....	41,	444
<i>Abegg, R. and Bodländer, G.</i> Electro-affinity as a basis for the systematization of inorganic compounds.....	28,	220
— and <i>Ende, C. L. von.</i> The electrolytic dissocia- tion theory (Review).....	38,	381
— and <i>Sackur, O.</i> Physikalisch-chemische Rechen- aufgaben (Review).....	44,	110
— <i>Auerbach, F. and Luther, R.</i> Messungen elek- tromotorischer Kräfte galvanischer Ketten mit wässerigen Elektrolyten (Review).....	48,	382
<i>Abel, E.</i> Hypochlorite und electrische Bleiche (Review)	35,	191
— See <i>Cowper-Coles, S., Minet, A.</i>		
<i>Acree, S. F.</i> Constitution of phenylurazole. I.....	27,	118
— and <i>Hinkins, J. E.</i> Hydrolysis of triacetyl- glucose by enzymes.....	28,	370
— On sodium phenyl and the action of sodium on ketones.....	29,	588
— A note on some of the reactions in the urazole series.....	31,	185
— On the acetyl derivatives of phenylurazole.....	32,	606
— On the pinacone-pinacolin rearrangement.....	33,	180
— Some new apparatus.....	35,	309
— and <i>Brunel, R. F.</i> On a new method for the prep- aration of standard solutions.....	36,	117
— and <i>Syme, W. A.</i> Some constituents of the poison ivy plant.....	36,	301
— and <i>Brunel, R. F.</i> On a new method for the preparation of standard solutions.....	36,	611
— Urazoles. VIII. On the salts of tautomeric com- pounds (preliminary paper).....	37,	71
— Urazoles. IX. On some semicarbazide deriva- tives of isopropionic acid, benzoic acid and benzenesulphonic acid.....	37,	361
— and <i>Johnson, J. M.</i> Studies in catalysis: the rearrangement of acetylhalogenaminobenzene de- rivatives into halogen acetanilide derivatives.....	37,	410
— A formaldehyde color test for proteids. I.....	37,	604
— Urazoles. X. On the constitution of phenyl- urazole. III. A contribution to the study of tautomerism.....	38,	1

<i>Acree, S. F. and Johnson, J. M.</i> Catalysis. IV. Studies in catalysis.....	38,	258
— and <i>Nirdlinger, S.</i> Catalysis. V. On the hydrolysis of amides by acids.....	38,	489
— <i>Johnson, J. M. and Nirdlinger, S.</i> Catalysis. VI. Studies in bromination.....	38,	746
— and <i>Schadinger, G. H.</i> Urazoles. XI. On the affinity constants and constitution of several urazoles.....	39,	124
— A reply to Julius Stieglitz's "Note on the article entitled 'Studies in catalysis,' by S. F. Acree".....	39,	145
— and <i>Shadinger, G. H.</i> Urazoles. XII. On the velocity constants and mechanism of the reactions of alkyl halides with urazoles and urazole salts	39,	226
— Catalysis. VII. On the reactions of carbonyl compounds with hydroxylamine and hydroxylamine hydrochloride.....	39,	300
— Catalysis. VIII. On the theories of catalysis: a reply to Julius Stieglitz.....	39,	513
— and <i>Stieglitz, J.</i> On the theory of indicators and the reactions of phthaleins and their salts (see also <i>Stieglitz, J.</i>)	39,	528
— <i>Johnson, J. M. and Nirdlinger, S.</i> Studies in bromination: a reply to Cohen and Cross.....	39,	544
— On the theories of indicators.....	39,	649
— and <i>Slagle, E. A.</i> Phthaleins. II. On the theory of indicators and the reactions of phthaleins and their salts.	39,	789
— Catalysis. X. Studies in catalysis: on the formation of esters from amides and alcohols.....	41,	457
— and <i>Slagle, E. A.</i> Tautomerism of phthaleins. III. On the theory of indicators and the reactions of phthaleins and their salts.....	42,	115
— Catalysis. XII. On the mechanism of organic reactions.....	48,	352
— Catalysis. XV. On the reactions of both the ions and the nonionized forms of electrolytes.....	49,	345
— On the pinacol-pinacolin rearrangement. IV. The preparation of benzoylformic acid and some of its derivatives.....	50,	389
— See <i>Brunel, R. F., Desha, L. J., Loomis, N. E., Loy, S. K., Marshall, Jr., E. K., Myers, C. N., Nirdlinger, S., Robertson, Jr., H. C., Stieglitz, J.</i>		
<i>Adams, A.</i> See <i>Istrati, C.-I.</i>		
<i>Adams, M.</i> On some hydroxylamine compounds.....	28,	198
— See <i>Richardson, G. M.</i>		

<i>Albe, E. E. F. d'.</i> Contemporary chemistry (Review).....	47,	529
<i>Alexander, J.</i> See <i>Zsigmondy, R.</i>		
<i>Alexeyeff, P.</i> and <i>Mathews, J. M.</i> General principles of organic syntheses (Review)	37,	117
<i>Allan, F. B.</i> The basic nitrates of bismuth	25,	307
— The sulphates of bismuth.	27,	284
<i>Allbee, A. G.</i> See <i>Hahn, D. A.</i>		
<i>Alleman, G.</i> A further investigation of <i>p</i> -toluenediazonium sulphate and of the action of sulphuric acid on the methyl ether of <i>p</i> -cresol.	31,	24
<i>Allen, A. H.</i> and <i>Leffmann, H.</i> Commercial organic analysis, Vol. I, 3rd ed. (Review).	21,	95
— Commercial organic analysis, Vol. IV, 2nd ed. (Review).	21,	278
— and <i>Leffmann, H.</i> Commercial organic analysis, 3rd ed. (Review).	21,	280
.... Vol. II, Part 1, 21, 280; Vol. I, Vol. II, Part 2,	24,	383
— and <i>Mathews, J. M.</i> Commercial organic analysis, Vol. III, Part 1, 3rd ed. (Review).	25,	88
— and <i>Tankard, A. R.</i> Commercial organic analysis, Vol. II, Part 3, 3rd ed. (Review).	39,	557
<i>Allen, E. T.</i> and <i>Gottschalk, V. H.</i> A new method for the determination of aluminium.	24,	292
— and <i>Rogers, H. F.</i> The action of caustic hydroxides on aluminium.	24,	304
— and <i>Gottschalk, V. H.</i> Researches on the oxides of tungsten.	27,	328
<i>Alliot, H.</i> See <i>Jacquemin, G.</i>		
<i>Allmand, A. J.</i> The principles of applied electrochemistry (Review).	50,	475
<i>Allyn, L. B.</i> Elementary applied chemistry (Review).	49,	168
<i>Alway, F. J.</i> On <i>p</i> -azoxybenzaldehyde.	28,	34
— and <i>Vail, C. E.</i> On the preparation of aromatic guanidines.	28,	158
— and <i>Viele, F. W.</i> On the aromatic guanidines.	28,	292
— On the azoxybenzaldehydes.	28,	475
— and <i>Walker, A. B.</i> The action of alkaline sulphides on <i>p</i> -nitrobenzylaniline.	30,	105
— and <i>Bonner, W. D.</i> The relations existing between the physical properties and the molecular weights of <i>p</i> - and <i>m</i> -nitrosobenzaldehyde.	30,	111
— The preparation of aromatic nitroso compounds	32,	385
— and <i>Bonner, W. D.</i> The nitrosocinnamic acids and esters.	32,	392
— and <i>Pinckney, R. M.</i> On certain nitrogen compounds.	32,	398
— and <i>Gortner, R. A.</i> The molecular weights of the yellow nitroso compounds.	32,	400

- Alway, F. J. and Gortner, R. A.* The condensation of the three nitranilines with *p*-nitrosobenzaldehyde..... 36, 510
- Studies on the soils of the northern portion of the Great Plains region: the second steppe..... 36, 580
- and *Gortner, R. A.* Studies on the soils of the northern portion of the Great Plains region: the third steppe..... 37, I
- and *McDole, G. R.* Studies on the soils from the northern portion of the Great Plains region: the distribution of carbonates on the second steppe.... 37, 275
- and *Trumbull, R. S.* Studies on the soils of the northern portion of the Great Plains region: nitrogen and humus..... 40, 147
- Ambler, J. A.* See *Johnson, T. B.*
- Ames, J. S.* Prismatic and diffraction spectra (Review) 21, 539
- The free expansion of gases (Review)..... 21, 539
- Anderson, E.* On the action of Fehling's solution on galactose..... 42, 401
- The oxidation of aldehydes by an aqueous solution of bromine..... 49, 179
- Anderson, J. A.* See *Jones, H. C.*
- Anderson, J. W.* Refrigeration (Review)..... 40, 577
- Andrew, I. A.* See *Foote, H. W.*
- Andrews, L. W.* A new volumetric method for the determination of silver..... 24, 256
- The calibration of burettes (Note)..... 28, 491
- The volumetric determination of mercury and of hydrocyanic acid..... 30, 187
- On a new method for the preparation of pure iodine..... 30, 428
- Use of the chromates of barium and of silver in the determination of sulphates and chlorides..... 32, 476
- Andrews, W. H.* See *Hart, E. B.*
- Anschütz, R.* See *Couper, A. S., Richter, V. von.*
- Archibald, E. H.* See *Richards, T. W.*
- Arey, A. L.* Elementary chemistry (Review)..... 23, 361
- Correspondence..... 24, 282
- Aries, E.* La statique chimique (Review)..... 33, 521
- Armitage, F. P.* A history of chemistry (Review)..... 37, 659
- Armsby, H. P.* The principles of animal nutrition (Review)..... 30, 445
- Armstrong, E. F.* The simple carbohydrates and the glucosides (Review)..... 44, 560
- Arnold, C. and Mandel, J. A.* A compendium of chemistry (Review) 32, 520

<i>Arrhenius, S. and McCrae, J.</i> Text-book of electro-chemistry (Review)	29,	514
— and <i>Finkelstein, A.</i> Theorien der Chemie (Review)	36,	523
— and <i>Price, T. S.</i> Theories of chemistry (Review)	38,	657
— Immuno-chemistry (Review)	39,	664
— <i>Hamburger, A. and Sackur, O.</i> Untersuchungen über die galvanische Leitfähigkeit der Elektrolyte (Review)	39,	800
— and <i>Finkelstein, A.</i> Theorien der Chemie, 2te Aufl. (Review)	44,	205
— The molecular theory (Report)	48,	536
— Conférences sur quelques thèmes choisis de la chimie pure et appliquée (Review)	48,	548
<i>Aschan, O.</i> Die Konstitution des Kamphers und seiner wichtigsten Derivate (Review)	31,	300
— Chemie der alicyclischen Verbindungen (Review)	35,	545
<i>Ashley, H. E.</i> See <i>Fay, H.</i>		
<i>Atwater, M. D.</i> Experiments with furimidomethyl ester, <i>p</i> -tolenylimidomethyl ester and β -naphthylimidoethyl ester	23,	145
<i>Atwater, W. O. and Langworthy, C. F.</i> A digest of metabolism experiments in which the balance of income and outgo was determined (Review)	21,	458
<i>Aubert, A. B.</i> See <i>Rogers, A.</i>		
<i>Auerbach, F.</i> See <i>Abegg, R.</i>		
<i>Auld, S. J. M.</i> An introduction to quantitative analysis (Review)	48,	469
<i>Austen, P. T.</i> See <i>Langworthy, C. F.</i>		
<i>Autenrieth, W. and Warren, W. H.</i> The detection of poisons and strong drugs (Review)	34,	473
<i>Avery, S.</i> A contribution to the chemistry of the aromatic glutaric acids	28,	48
— and <i>Parmelee, H. C.</i> β - <i>p</i> -Tolylglutaric acid	28,	49
— and <i>Gere, M. C.</i> β - <i>m</i> -Nitrophenylglutaric acid	28,	51
— and <i>Beans, H. T.</i> β - <i>p</i> -Nitrophenylglutaric acid	28,	55
<i>BACON, R. F.</i> On the reactions of sodium benzhydrol	33,	68
— and <i>Freer, P. C.</i> The action of sodium on acetone	38,	367
<i>Baeyer, A. von.</i> Gesammelte Werke (Review)	36,	103
<i>Bailey, E. H. S. and Cady, H. P.</i> A laboratory guide to the study of qualitative analysis (Review)	4th ed., 27, 157; 5th ed., 35,	547
— A text-book of sanitary and applied chemistry (Review)	37,	205

<i>Bailey, J. R.</i> Ring condensations of the esters of uramido and semicarbazino acids with sodium alcoholate . . .	28,	386
<i>Bailey, R. D.</i> The brewer's analyst (Review)	41,	446
<i>Balfour, A. J.</i> Reflections suggested by the new theory of matter (Review)	34,	586
<i>Baly, E. C. C.</i> Spectroscopy (Review) . . . 34, 592; new ed.,	48,	549
<i>Barfield, C. E.</i> See <i>Whitlock, T. C.</i>		
<i>Barker, E. R.</i> See <i>Mulliken, S. P.</i>		
<i>Barker, G. F.</i> Röntgen rays (Review)	21,	539
<i>Barnes, B.</i> Experiments with silver succinimide and benzoylbenzimidioethyl ester	23,	148
— See <i>Wheeler, H. L.</i>		
<i>Barnes, J.</i> See <i>Jones, H. C.</i>		
<i>Barnett, E. DeB.</i> The preparation of organic compounds (Review)	49,	525
<i>Bartley, E. H.</i> Manual of physiological and clinical chemistry, 2nd ed. (Review)	33,	432
— Text-book of medical and pharmaceutical chemistry, 6th ed. (Review)	35,	476
<i>Basch, E. E.</i> See <i>Bruni, G.</i>		
<i>Baskerville, C.</i> School chemistry (Review)	22,	330
— Radium and radio-active substances (Review) . . .	35,	290
<i>Bassett, H. P.</i> See <i>Jones, H. C.</i>		
<i>Bates, P. H., Phillips, A. J. and Wig, R. J.</i> Action of the salts in alkali water and sea water on cements (Review)	50,	185
— See <i>Wig, R. J.</i>		
<i>Battle, H. B. and Gascoyne, W. J.</i> Chemical conversion tables (Review)	44,	110
<i>Bauer, H. and Stanford, R. V.</i> A history of chemistry (Review)	38,	798
<i>Baumert, G., Dennstedt, M. and Voigtländer, F.</i> Lehrbuch der gerichtlichen Chemie, Band II (Review)	36,	221
<i>Baumhauer, H.</i> Die neuere Entwicklung der Kristallographie (Review)	35,	97
<i>Baxter, G. P.</i> The occlusion of hydrogen by metallic cobalt and other metals	22,	351
— The determination of phosphoric acid by means of ammonium phosphomolybdate	28,	298
— and <i>Hines, M. A.</i> The specific gravities of cadmium chloride and cadmium bromide	31,	220
— and <i>Lamb, A. B.</i> The specific gravity of zinc chloride	31,	229
— The specific gravities of lithium chloride, bromide and iodide	31,	558

<i>Baxter, G. P. and Hickey, C. H.</i> Pure nitrogen from nitrous and nitric oxides and ammonia.....	33,	300
— and <i>Zanetti, J. E.</i> The determination of oxalic acid by permanganate in the presence of hydrochloric acid	33,	500
— and <i>Frevert, H. L.</i> The titration of ferrous iron with permanganate in the presence of hydrochloric acid.....	34,	109
— and <i>Griffin, R. C.</i> The determination of phosphoric acid by means of ammonium phosphomolybdate. II.....	34,	204
<i>Baynes, R. E.</i> See <i>Meyer, O. E.</i>		
<i>Beam, W.</i> See <i>Leffmann, H.</i>		
<i>Beans, H. T.</i> See <i>Avery, S.</i>		
<i>Beardsley, A. P.</i> See <i>Wheeler, H. L.</i>		
<i>Beardsley, H. P.</i> See <i>Wells, H. L.</i>		
<i>Beattie, F. S.</i> Abnormal biochemical products of the rue anemone.....	40,	415
<i>Beatty, L. O.</i> See <i>Kastle, J. H.</i>		
<i>Beatty, W. A.</i> The action of carbon monoxide on sodium alcoholates alone and in the presence of salts of fatty acids.....	30,	224
— See <i>Kastle, J. H.</i>		
<i>Becker, H.</i> Die Elektrometallurgie der Alkalimetalle (Review).....	32,	89
<i>Beckurts, H. and Lünig, O.</i> Die methoden der Massanalyse (Review).....	1te Abt., 45, 89; 2te Abt., 48,	196
— Grundzüge der pharmazeutischen Chemie, 1ter Band (Review).....	49,	337
<i>Beebe, S. P. and Buxton, R. H.</i> Outlines of physiological chemistry (Review).....	33,	606
<i>Behr, G. E.</i> See <i>Jackson, C. L.</i>		
<i>Benedict, F. G.</i> Absorption apparatus for elementary organic analysis	23,	323
— The elementary analysis of organic substances containing nitrogen.. ..	23,	334
— Chemical lecture experiments (Review).....	26,	207
— and <i>Manning, C. R.</i> A chemical method for obtaining vacua.....	27,	340
— Elementary organic analysis (Review).....	28,	328
<i>Benedict, S. R.</i> Methods for the detection of acetate, cyanide and lithium.....	32,	480
— The use of potassium periodate in the detection of manganese, cobalt and zinc.....	34,	581
<i>Bengough, G. D.</i> See <i>Brown, J. C.</i>		
<i>Bennigson, F.</i> See <i>Müller, G.</i>		

<i>Benson, G. and Hillyer, H. W.</i> The action of benzoyl chloride on ammonium sulphocyanate.....	26,	373
<i>Bentley, W. B.</i> The action of nitric acid on vanillin.....	24,	171
<i>Berge, A.</i> Die Fabrikation von Bittersalz und Chlor-magnesium (Review).....	48,	261
<i>Berkheiser, E. J.</i> See <i>McKee, R. H.</i>		
<i>Bernadou, J. B.</i> Smokeless powder, nitrocellulose, and theory of the cellulose molecule (Review).....	27,	237
<i>Bernthsen, A. and Mohr, E.</i> Kurzes Lehrbuch der organischen Chemie (Review).....	9te Aufl., 35, 547; 10te Aufl., 42,	371
— and <i>Darapsky, A.</i> Kurzes Lehrbuch der organischen Chemie, 11te Aufl. (Review).....	47,	456
<i>Bertelsmann, W.</i> Die Entwicklung der Leuchtgas-erzeugung seit 1890 (Review).....	40,	491
<i>Bertiaux, L.</i> See <i>Hollard, A.</i>		
<i>Betts, A. G.</i> Lead refining by electrolysis (Review).....	40,	493
<i>Bevan, E. J.</i> See <i>Cross, C. F.</i>		
<i>Bicknell, G. A.</i> See <i>Cremer, J. H.</i>		
<i>Biddle, H. C.</i> The reduction of copper by solutions of ferrous salts.....	26,	377
— The determination of molecular weights.....	29,	341
— On derivatives of formhydroxamic acid and the possible existence of esters of fulminic acid.....	33, 60; II, 35,	346
— See <i>Pictet, A.</i>		
<i>Biedermann, R.</i> Die Sprengstoffe (Review).....	44,	560
<i>Biehringer, J.</i> Einführung in die Stöchiometrie (Review)	24,	535
<i>Bigelow, H. E.</i> See <i>Jackson, C. L.</i>		
<i>Bigelow, S. L.</i> A simplification of Beckmann's boiling-point apparatus.....	22,	280
— Theoretical and physical chemistry (Review)....	48,	548
<i>Billiter, J.</i> Die elektrochemischen Verfahren der chemischen Gross-Industrie (Review).....	1ter Band, 43, 472; 2ter Band, 48,	97
— Die elektrolitische Alkalichloridzerlegung mit starren Metallkathoden (Review).....	1ter Teil, 49, 74; 2ter Teil, 50,	56
<i>Biltz, H., Jones, H. C. and King, S. H.</i> Practical methods for determining molecular weights (Review).....	22,	496
— Experimentelle Einführung in die unorganische Chemie (Review).....	23,	275
— Qualitative Analyse unorganischer Substanzen (Review).....	23,	275
— and <i>Biltz, W.</i> Uebungsbeispiele aus der unorganischen Experimentalchemie (Review).....	39,	559

<i>Biltz, H., Biltz, W., Hall, W. T. and Blanchard, A. A.</i> Laboratory methods of inorganic chemistry (Review).....	43,	185
— and <i>Biltz, W.</i> Uebungsbeispiele aus der unorganischen Experimentalchemie, 2te Aufl. (Review) 50,		53
<i>Biltz, W.</i> Ausführung qualitativen Analysen (Review)....	49,	432
— See <i>Biltz, H.</i>		
<i>Bingham, E. C.</i> Viscosity and fluidity.....	35,	195
— Solubility.....	I, 37, 549; 38,	91
— Viscosity and fluidity.....		
.....Preliminary paper, 40, 277; IX, 43,		287
— Viscosity and fluidity of matter in the three states of aggregation and the molecular weight of solids. X.....	45,	264
— and <i>White, G. F.</i> A laboratory manual of inorganic chemistry (Review).....	46,	214
— and <i>Durham, T. C.</i> The viscosity and fluidity of suspensions of finely divided solids in liquids. XII.....	46,	278
— Fluidity and vapor pressure. XIII.....	47,	185
<i>Bird, R. M.</i> A convenient gas generator (Note).....	28,	492
— The action of ammonia and of alcohols and alcoholates upon the chlorides of <i>o</i> -sulphobenzoic acid.....	30,	262
— Modern science reader (Review).....	47,	457
<i>Biron, E. V.</i> See <i>Jones, H. C.</i>		
<i>Bischoff, C. A.</i> Materialien der Stereochemie (Review)...	33,	327
<i>Bishop, F. L.</i> A periodic relation between the atomic weights and the index of refraction.....	35,	84
<i>Black, J. A.</i> See <i>Orndorff, W. R.</i>		
<i>Black, O. F.</i> See <i>Hill, H. B., Torrey, Jr., J.</i>		
<i>Blair, A. A.</i> The chemical analysis of iron (Review)....		
.....4th ed., 25, 437; 7th ed., 43,		388
<i>Blake, F. C.</i> See <i>Blake, J. C.</i>		
<i>Blake, J. C. and Blake, F. C.</i> Note on the rate of hydration of metaphosphoric acid.....	27,	68
<i>Blake, S. A.</i> See <i>Horn, D. W.</i>		
<i>Blanc, G.</i> Camphor (Report).....	43,	255
<i>Blanchard, A. A.</i> Synthetic inorganic chemistry (Review) 41,		449
— See <i>Biltz, H., Talbot, H. P.</i>		
<i>Blanchard, W. M.</i> The chlorides of <i>p</i> -bromo- <i>o</i> -sulphobenzoic acid and some of their derivatives.....	30,	485
— Laboratory exercises in general chemistry (Review).....	44,	390
— See <i>Noyes, W. A.</i>		
<i>Blanck, F. C.</i> See <i>Tingle, J. B.</i>		

- Bleier, O.* Neue gasometrische Methoden und Apparate (Review)..... 21, 458
- Blochmann, R.* and *Howe, J. L.* Guide to preparation work in inorganic chemistry (Review)..... 30, 83
- Blount, B.* Practical electrochemistry (Review)..... 26, 385
- Bodländer, G.* Jahresbericht über die Fortschritte der Chemie, Heft I (Review)..... 24, 104
- *Kerp, W.* and *Minunni, G.* Jahresbericht über die Fortschritte der Chemie (Review)..... 1894, 4tes und 5tes Hefte, 29, 88; 9tes Heft, 30, 443
- See *Abegg, R.*
- Börnstein, R.* and *Meyerhoffer, W.* Landolt-Börnstein, physikalische-chemische Tabellen, 3te Aufl. (Review) 34, 591
- Böttger, W.* Amerikanisches Hochschulwesen (Review)... 37, 198
- and *Smeaton, W. G.* The principles of qualitative analysis (Review)..... 37, 201
- Qualitative Analyse, 2te Aufl. (Review)..... 42, 97
- Stand und Wege der analytischen Chemie (Review)..... 48, 99
- Qualitative Analyse, 3te Aufl. (Review)..... 50, 472
- Bolduan, C.* See *Wassermann, A.*
- Bolling, R.* Preservation of Hübl's reagent..... 22, 213
- Bolton, E. R.* and *Revis, C.* Fatty foods (Review)..... 49, 530
- Bolton, H. C.* A select bibliography of chemistry, 1492-1897, 1st suppl. (Review)..... 21, 539
- Evolution of the thermometer: 1592-1743 (Review)..... 25, 348
- A select bibliography of chemistry, 1492-1902, 2nd suppl. (Review)..... 33, 605
- The follies of science at the court of Rudolph II (Review)..... 34, 108
- Boltwood, B. B.* See *Deventer, C. van.*
- Bonner, W. D.* See *Alway, F. J.*
- Borchers, W.* Elektro-Metallurgie, 3te Aufl., 1te Abt. (Review)..... 29, 396
- Handbuch der Elektrochemie (Review)..... 29, 618
- Die Beziehung zwischen Aequivalentvolumen und Atomgewicht (Review)..... 33, 213
- See *Nernst, W.*
- Boswell, M. C.* See *Jackson, C. L.*
- Bottler, M.* Die Lack- und Firnisfabrikation (Review).... 43, 93
- Boudouard, O.* See *LeChatelier, H.*
- Bourbakis, C. J.* See *Mittelstaedt, O.*
- Bowers, H. L.* See *Schober, W. B.*
- Bowser, L. T.* The titrimetric estimation of phosphorus in small amounts..... 45, 230

<i>Bradley, W. P.</i> A serviceable generator for hydrogen sulphide.....	21,	370
<i>Bradshaw, H.</i> Relative rates of oxidation of ortho, meta and para compounds.....	35,	326
— <i>o</i> -Sulphaminebenzoic acid and related compounds.....	35,	335
— Some derivatives of phenylglycocoll- <i>o</i> -sulphonic acid.....	35,	340
<i>Bransky, O. E.</i> See <i>Gilpin, J. E.</i>		
<i>Brautlecht, C. A.</i> See <i>Wheeler, H. L.</i>		
<i>Bray, W. C.</i> See <i>Noyes, A. A.</i>		
<i>Brearley, H.</i> The analytical chemistry of uranium (Review).....	31,	589
<i>Bredig, G.</i> Anorganische Fermente (Review).....	25,	517
<i>Brewer, C. E.</i> See <i>Orndorff, W. R.</i>		
<i>Bridge, J. L.</i> and <i>Morgan, W. C.</i> The ethers of isonitroso-guaiacol in their relation to the space isomerism of nitrogen.....	22,	484
<i>Bristol, H. S.</i> The caesium-mercuric thiocyanates.....	28,	260
— See <i>Foote, H. W.</i> , <i>Wheeler, H. L.</i>		
<i>Bronn, J.</i> Verflüssigtes Ammoniak als Lösungsmittel (Review).....	35,	192
<i>Brooklyn Polytechnic Institute Students.</i> The Polytechnic Engineer (Review).....	X, 47, 88; XIII, 50,	340
<i>Brown, A. J.</i> Laboratory studies for brewing students (Review).....	34,	354
<i>Brown, J. C.</i> and <i>Bengough, G. D.</i> Practical chemistry, 6th ed. (Review).....	50,	473
<i>Brown, J. W.</i> See <i>LeBlanc, M.</i> , <i>Mulliken, S. P.</i>		
<i>Browning, P. E.</i> Introduction to the rarer elements (Review).....	30, 542; 2nd ed., 43, 92; 3rd ed., 49,	337
— See <i>Gooch, F. A.</i>		
<i>Bruce, E. M.</i> Detection of common food adulterants (Review).....	40,	313
<i>Brunck, H.</i> The history of the development of the manufacture of indigo (Review).....	26,	387
<i>Brunel, R. F.</i> and <i>Acree, S. F.</i> Urazoles. XVI. On the salts of tautomeric compounds: reactions of urazole salts with alkyl halides.....	43,	505
— and <i>Probeck, E. G.</i> Additive power of 2-pentene.....	44,	431
— See <i>Acree, S. F.</i> , <i>Michael, A.</i>		
<i>Bruni, G.</i> and <i>Basch, E. E.</i> Ueber feste Lösungen (Review).....	27,	424
<i>Brunswig, H.</i> , <i>Munroe, C. E.</i> and <i>Kibler, A. L.</i> Explosives (Review).....	49,	431

- Buchanan, J. Y.* Experimental researches on the specific gravity and the displacement of some saline solutions (Review)..... 49, 528
- Bucher, J. E.* The action of ethyl iodide on tartaric ester and sodium ethylate..... 23, 70
- Buckingham, E.* An outline of the theory of thermodynamics (Review)..... 25, 171
- Bunge, G., Starling, F. A. and Starling, E. H.* Text-book of physiological and pathological chemistry, 2nd English ed. (Review)..... 28, 493
- Burgess, G. K.* See *Duhem, P., LeChatelier, H.*
- Burke, K. A.* See *Thomsen, J.*
- Burnham, G.* See *Johnson, T. B.*
- Burnley, M. C.* See *Kohler, E. P.*
- Burrows, G. H.* The generation of oxygen from sodium peroxide (Note)..... 37, 283
- Bushong, F. W.* Esters of sulphuric acid and of chlor-sulphonic acid..... 30, 212
- Buxton, R. H.* See *Beebe, S. P.*
- Byers, H. G.* A rapid method for the preparation of crystals of ammonium pentasulphide (Note)..... 28, 490
- and *Reid, E. E.* Perchromic acid and the perchromates..... 32, 503
- See *Morse, H. N.*
- CADY, H. P.** Inorganic chemistry (Review)..... 50, 54
- See *Bailey, E. H. S.*
- Cain, J. C.* The chemistry of the diazo-compounds (Review)..... 41, 76
- and *Thorpe, J. F.* The synthetic dyestuffs, 2nd ed. (Review)..... 50, 479
- Caldwell, B. P.* Note on the Budde effect with reference to bromine..... 31, 61
- See *Jones, H. C.*
- Calhane, D. F. and Wheeler, P. M.* On the constitution of α -dibromdinitrobenzol-*p*-dibrom-*o*-dinitrobenzol 22, 449
- See *Jackson, C. L.*
- Calvin, J. W.* See *Mathewson, W. E.*
- Cameron, A. T.* Radiochemistry (Review)..... 45, 87
- Cameron, F. K.* Estimation of alkali carbonates in the presence of bicarbonates..... 23, 471
- Canter, H.* *o*-Phenylsulphonebenzoic acid and related compounds..... 25, 96
- Carel, H. C.* Inorganic chemistry syllabus, 3rd ed. (Review)..... 30, 166
- Carleton, P. W.* See *Jackson, C. L.*

<i>Carlton, H. A.</i> See <i>Jackson, C. L.</i>	
<i>Carnahan, D. H.</i> See <i>Chesneau, G.</i>	
<i>Carnot, A.</i> Traité d'analyse des substances minérales (Review).....Tome I, 21, 179; Tome II, 31,	683
<i>Carpenter, J. L.</i> See <i>Morse, H. N.</i>	
<i>Carré, P.</i> Hydrocarbures, alcools et éthers de la série grasse (Review).....	46, 649
<i>Carroll, C. G.</i> Ionic velocity and ionic hydration. I.....	36, 594
— See <i>Jones, H. C.</i>	
<i>Cash, G.</i> See <i>Morse, H. N.</i>	
<i>Caspari, C. E.</i> Polonium and radium (Note).....	23, 262
— On radioactive barium (Note).....	24, 98
— On sulphur perfluoride, SF ₆ (Note).....	24, 99
— On higher superoxides of hydrogen (Note).....	24, 281
— The new radioactive substances (Note).....	25, 77
— The higher superoxides of hydrogen (Report)....	25, 336
— The density and molecular weight of ozone (Re- port).....	25, 432
— An investigation of the fatty oil contained in the seeds of <i>Lindera benzoin</i> . Lauric acid and some of its derivatives.....	27, 291
<i>Caswell, J. H.</i> See <i>Cornwall, H. B.</i>	
<i>Cathcart, E. P.</i> The physiology of protein metabolism (Review).....	48, 553
<i>Cavalier, J.</i> Leçons sur les alliages métalliques (Review)	43, 389
<i>Chalker, W. C.</i> See <i>Foote, H. W.</i>	
<i>Chamberlain, J. S.</i> Charles Anthony Goessmann (Obitu- ary).....	44, 475
— A further study of two of the products of the transformation of <i>p</i> -sulphamidobenzoic acid when heated to 220°.....	47, 318
<i>Chambers, V. J.</i> and <i>Frazer, J. C. W.</i> On a minimum in the molecular lowering of the freezing point of water, produced by certain salts and acids.....	23, 512
— A further investigation of the action of phenols and alcohols on the chlorides of <i>p</i> -nitro- <i>o</i> -sulpho- benzoic acid.....	30, 373
— See <i>Jones, H. C.</i>	
<i>Charabot, E.</i> Les parfums artificiels (Review).....	23, 275
<i>Chattaway, F. D.</i> and <i>Orton, K. J. P.</i> Preparation and properties of the so-called "nitrogen iodide".....	23, 363
— and <i>Stevens, H. P.</i> The action of reducing agents upon nitrogen iodide.....	23, 369
— The composition of nitrogen iodide.....	24, 138
— and <i>Orton, K. J. P.</i> The action of light on nitrogen iodide.....	24, 159

- Chattaway, F. D. and Orton, K. J. P.* The action of alkaline hydroxides, of water and of hydrogen peroxide upon nitrogen iodide..... 24, 318
- and *Stevens, H. P.* The action of acids upon nitrogen iodide..... 24, 331
- and *Orton, K. J. P.* The formation and constitution of nitrogen iodide..... 24, 342
- The action of chlorine upon urea whereby a dichlorurea is produced..... 41, 83
- Chenu, G.* See *Post, J.*
- Chesneau, G., Lincoln, A. T. and Carnahan, D. H.* Theoretical principles of the methods of analytical chemistry (Review)..... 44, 562
- Chikasige, M.* See *Kuhara, M.*
- Christiansen, C.* Uber Natronzellstoff (Review)..... 50, 483
- Christie, W. W.* Boiler-waters (Review)..... 38, 124
- Water (Review)..... 49, 529
- Christy, S. B.* The electromotive force of metals in solutions of cyanide..... 27, 354
- Clapp, S. H.* See *Johnson, T. B., Wheeler, H. L.*
- Clark, F. E.* The action of aliphatic amines on the chlorides of *o*-sulphobenzoic acid..... 30, 277
- Clark, L. L., Gortner, R. A. and Vail, C. E.* Studies on some soils from Saskatchewan..... 39, 163
- Clark, M. E.* See *Kastle, J. H.*
- Clark, W. M.* See *Morse, H. N.*
- Clarke, F. W.* The calculation of atomic weights..... 27, 321
- The data of geochemistry (Review)..... 40, 491
- George Frederick Barker (Obituary)..... 44, 556
- Clarke, H. T.* A handbook of organic analysis (Review) 48, 100
- Clarke, L.* Note on the preparation of certain amines..... 33, 496
- and *Shreve, R. N.* Isohexane and a new dodecane 35, 513
- Methyl-di-*n*-propylmethane..... 39, 87
- Diethylisopropylmethane..... 39, 572
- and *Jackson, C. L.* Rosocyanine..... 39, 696
- See *Jackson, C. L.*
- Clarkson, S. S.* See *Dyson, S. S.*
- Classen, A.* Ausgewählte Methoden der analytischen Chemie (Review). 1ter Band, 25, 437; 2ter Band, 31, 188
- and *Cloeren, H.* Quantitative Analyse durch Elektrolyse, 5te Aufl. (Review)..... 41, 447
- and *Cloeren, H.* Theorie und Praxis der Massanalyse (Review)..... 47, 455
- *Cloeren, H. and Hall, W. T.* Quantitative analysis by electrolysis (Review)..... 50, 471

<i>Classen, H., Hall, W. T. and Rolfe, G. W.</i> Beet-sugar manufacture (Review).....	37,	423
<i>Claude, G. and Cottrell, H. E. P.</i> Liquid air, oxygen, nitrogen (Review).....	50,	482
<i>Clemmensen, E. and Heitman, A. H. C.</i> Ureides and cyanamides of the dialkyloxyacetic acids.....	40,	280
— and <i>Heitman, A. H. C.</i> Ureides and cyanamides of the oxyfatty acids. II.....	42,	319
<i>Cloeren, H.</i> See <i>Classen, A.</i>		
<i>Clover, A. M. and Richmond, G. F.</i> The hydrolysis of organic peroxides and peracids.....	29,	179
— The existence of hydrogen tetroxide.....	29,	463
— The addition of iodine and of potassium iodide to organic compounds containing the carbonyl group	31,	256
— and <i>Houghton, A. C.</i> The action of hydrogen peroxide upon anhydrides and the formation of organic acid peroxides and peracids.....	32,	43
— The terpenes obtained from individual samples of the resin, Manila <i>elemi</i>	39,	613
— and <i>Jones, H. C.</i> The conductivities, dissociations and temperature coefficients of conductivity between 35° and 80° of solutions of a number of salts and organic acids.....	43,	186
— See <i>Freer, P. C.</i>		
<i>Clowes, F. and Coleman, J. B.</i> Quantitative chemical analysis (Review).....5th ed.,	25, 251; 6th ed.,	299
— and <i>Coleman, J. B.</i> Elementary practical chemistry, 5th ed. (Review), Part II,	38, 251; Part I,	311
— A treatise on qualitative analysis, 8th ed. (Review).....	41,	161
— and <i>Coleman, J. B.</i> Quantitative chemical analysis (Review).....8th ed.,	44, 199; 9th ed.,	532
<i>Cobb, P. H.</i> The triphenylmethyl question (Report).....	33,	511
— Further investigations of the two chlorides of <i>o</i> -sulphobenzoic acid.....	35,	486
— On the addition of hydrocyanic acid to unsaturated compounds (preliminary note).....	45,	604
— and <i>Fuller, G. P.</i> A further investigation of certain derivatives of <i>o</i> -sulphobenzoic acid.....	45,	605
<i>Coblentz, V.</i> The newer remedies, 3rd ed. (Review).....	22,	332
— A manual of volumetric analysis (Review).....	29,	178
— and <i>Vorisek, A.</i> A manual of volumetric analysis, 2nd ed. (Review).....	43,	471
<i>Cohen, E. and Fischer, M. H.</i> Physical chemistry for physicians and biologists (Review).....	30,	165

- Cohen, E. and Romburgh, P. van.* Vorlesungen über anorganische Chemie für Studierende der Medizin (Review)..... 37, 290
- Vorträge für Aertze über physikalische Chemie, 2te Aufl. (Review)..... 39, 665
- Das Lachgas (Review)..... 40, 316
- Jacobus Henricus van't Hoff (Review)..... 49, 424
- See *Deventer, C. van, Hoff, J. H. van't.*
- Cohen, J. B. and Cross, W. E.* Studies in bromination 39, 431
- Organic chemistry (Review)..... 40, 213
- and *Ruston, A. G.* Smoke (Review)..... 50, 491
- Cohn, A. I.* Indicators and test-papers (Review) 22, 416; 2nd ed., 28, 410
- Tests and reagents, chemical and microscopical (Review)..... 30, 441
- See *Fresenius, C. R., Lunge, G., Pozzi-Escot, E.*
- Cohn, G.* Die Riechstoffe (Review)..... 32, 519
- Cohnheim, O.* Chemie der Eiweisskörper (Review).... 2te Aufl., 32, 407; 3te Aufl., 47, 86
- Cohoe, W. P.* See *Jackson, C. L.*
- Cole, S. W.* Exercises in practical physiological chemistry (Review)..... 34, 171; 42, 179
- Coleman, J. B.* See *Clowes, F.*
- Colson, A.* Contribution à l'histoire de la chimie (Review) 47, 358
- Comanducci, E. and Roth, W.* Die Konstitution der Chinaalkaloide (Review)..... 46, 535
- Congdon, E. A.* Laboratory instructions in general chemistry (Review)..... 26, 207
- Conn, W. T.* See *Michael, A.*
- Constam, E. J. and White, J.* Physico-chemical investigations in the pyridine series..... 29, 1
- Conter, P.* Enciclopedia pratica per le industrie galvanoplastiche, elettrochimiche e fotomeccaniche (Review)..... 43, 566
- Cook, A. N. and Hillyer, H. W.* Derivatives of phenyl ether..... 24, 525
- and *Frary, G. C.* Derivatives of phenyl ether. IV 28, 486
- *m*-Tolyl ether and derivatives..... 36, 543
- Cook, C. G.* Some double halides of tin with the aliphatic amines and with tetramethylammonium..... 22, 435
- Cooper, H. C.* Stereoisomers and racemic compounds.... 23, 255
- *Shaw, L. I. and Loomis, N. E.* Lead silicates: thermal analysis of the system PbO-SiO_2 42, 461
- *Kraus, E. H. and Klein, A. A.* Lead silicates. II. Optical and thermal analysis of the system PbO-SiO_2 47, 273

<i>Cooper, H. C.</i>	See <i>Holleman, A. F.</i>	
<i>Cornwall, H. B. and Caswell, J. H.</i>	Plattner's manual of qualitative and quantitative analysis with the blowpipe (Review).....	29, 516
<i>Corse, W. M.</i>	See <i>Norris, J. F.</i>	
<i>Corvisy, A.</i>	See <i>Erdmann, H., Hoff, J. H. van't, Ladenburg, A., Nernst, W.</i>	
<i>Cottrell, F. G. and Rogers, R. R.</i>	Note on the action of liquid hydriodic acid on ethyl ether.....	21, 64
<i>Cottrell, H. E. P.</i>	See <i>Claude, G.</i>	
<i>Coughlin, P.</i>	On the preparation of bromoform by electrolysis.....	27, 63
<i>Couper, A. S. and Anschütz, R.</i>	Ueber eine neue chemische Theorie (Review).....	47, 267
<i>Coux, H. de la.</i>	L'eau dans l'industrie (Review).....	25, 81
<i>Coward, H. F. and Perkins, W. H.</i>	Exercises in chemical calculation (Review).....	49, 78
<i>Cowper-Coles, S. and Abel, E.</i>	Elektrolytische Verfahren zur Herstellung parabolischer Spiegel (Review)....	33, 520
<i>Cram, M. P.</i>	See <i>Gilpin, J. E., Tingle, J. B.</i>	
<i>Crampton, C. A.</i>	See <i>Sullivan, A. L.</i>	
<i>Crane, F. D.</i>	A contribution to the knowledge of tellurium	23, 408
<i>Crane, G. W.</i>	The iron ores of Missouri (Review).....	49, 344
<i>Creighton, H. J. M. and Mackenzie, A. S.</i>	The influence of radium on the decomposition of hydriodic acid	39, 474
<i>Cremer, J. H. and Bicknell, G. A.</i>	Chemical and metallurgical handbook, 2nd ed. (Review).....	21, 100
<i>Cross, C. F. and Bevan, E. J.</i>	Researches on cellulose (Review).....(1895-1900),	29, 176; (1900-1905), 37, 199; (1905-1910), 49, 77
<i>Cross, W., Iddings, J. P., Pirsson, L. V. and Washington, H. S.</i>	Quantitative classification of igneous rocks (Review).....	30, 442
<i>Cross, W. E.</i>	See <i>Cohen, J. B.</i>	
<i>Cruickshank, J.</i>	See <i>Prost, E.</i>	
<i>Culver, L. R.</i>	See <i>Norris, J. F.</i>	
<i>Cuniasse, L. and Zwillling, R.</i>	Modes opératoires des essais du commerce et de l'industrie (Review).....	23, 267
<i>Cunningham, J.</i>	See <i>Lloyd, S. J.</i>	
<i>Curie, P.</i>	Recent research on radioactivity (Report).....	31, 410
<i>Curie, Mme. P. and Kaufmann, W.</i>	Untersuchungen über die radioaktiven Substanzen (Review).....	31, 680
— and <i>Gleditsch, Mlle.</i>	Action of radium emanation on solutions of copper salts (Report).....	40, 485
—	Die Entdeckung des Radiums (Review).....	48, 551

- Curtiss, R. S.* On the action of nitrous acid on ethyl anilinomalonate (preliminary report)..... 23, 509
 — On an acid derivative of ethyl anilinomalonate.... 28, 315
 — Certain substitution derivatives of ethyl anilinomalonate..... 30, 133
 — A convenient and practical method for making the ester of mesoxalic acid..... 33, 603
 — Amine derivatives of mesoxalic esters..... 35, 354
 — The reaction of nitrous anhydride with ethyl malonate..... 35, 477
Cushman, A. S. On some isomeric halogen compounds of thallium, and the constitution of double salts. I, 24, 222
 — On some complex compounds of thallium and the constitution of double salts..... 26, 505
 — Note..... 31, 445
- DAKIN, H. D. The oxidation of hydroxy derivatives of benzaldehyde, acetophenone and related substances..... 42, 477
 — A general reaction for the conversion of saturated fatty acids ($R.CH_2.CH_2COOH$) into ketones ($R.CO.CH_3$)..... 44, 41
 — The catalytic racemization of optically active hydantoin derivatives and of related substances as the result of tautomeric change..... 44, 48
 — Oxidations and reductions in the animal body (Review)..... 49, 166
- Dammann, K.* Kurzes Repetitorium der organischen Chemie (Review)..... 36, 618
- Danneel, H.* Jahrbuch der Elektrochemie (Review)..... VIII, 29, 515; IX, 33, 199; X, 34, 260; XI, 36, 525
 — and *Merriam, E. S.* Electrochemistry. I (Review)..... 38, 507
 — Jahrbuch der Elektrochemie. XII (Review).... 42, 558
 — and *Meyer, J.* Jahrbuch der Elektrochemie. XIII (Review)..... 50, 55
- Darapsky, A.* See *Bernhsen, A.*
- Dar Juan, T.* On the behavior of triethylamine towards oxidizing agents..... 43, I
- Davis, W. A.* and *Sadler, S. S.* Allen's commercial organic analysis, 4th ed. (Review)..... Vol. III, 45, 324; Vol. IV, 46, 308; Vol. VI, 48, 261; Vol. V, 49, 170; Vol. VII, 50, 190
 — See *Leffmann, H.*
- Day, W. C.* The laboratory production of asphalts from animal and vegetable materials..... 21, 478

<i>Dean, A. L.</i> On inulin.....	32,	69
<i>DeBarr, E.</i> The rate of action of water on certain α -, β - and γ -halogen substituted fatty acids.....	22,	333
<i>Defren, G.</i> See <i>Abderhalden, E.</i>		
<i>Dehn, W. M.</i> Primary arsines.....	33,	101
—— and <i>Wilcox, B. B.</i> Secondary arsines.....	35,	1
—— Reactions of the arsines.....	40,	88
<i>Deiler, A. C.</i> and <i>Fraps, G. S.</i> Pecan oil (Note).....	43,	90
<i>Delbridge, T. G.</i> Tetrachlorophthalic acid.....	41,	393
—— See <i>Orndorff, W. R.</i>		
<i>DeLury, R. E.</i> See <i>Kenrick, F. B.</i>		
<i>Demorest, D. J.</i> See <i>Lord, N. W.</i>		
<i>Denis, W.</i> On the behavior of various aldehydes, ketones and alcohols towards oxidizing agents.....	38,	561
<i>Dennis, L. M.</i> and <i>Whittlesey, T.</i> Qualitative analysis (Review).....	29,	395
—— See <i>Hempel, W.</i>		
<i>Dennstedt, M.</i> Anleitung zur vereinfachten Elementar- analyse, 2te Aufl. (Review).....	37,	289
—— and <i>Voigtländer, F.</i> Der Nachweis von Schrift- fälschungen, Blut, Sperma, u. s. w. (Review).....	37,	291
—— See <i>Baumert, G.</i>		
<i>Derby, I. H.</i> Studies in catalysis. IV. The catalysis of imidoesters.....	39,	437
—— See <i>Jackson, C. L., Stieglitz, J.</i>		
<i>Derby, Jr., J. H.</i> See <i>Johnson, T. B.</i>		
<i>Derr, L.</i> Photography for students of physics and chem- istry (Review).....	38,	121
<i>Desha, L. J.</i> An apparatus for the purification of mercury	41,	152
—— and <i>Acree, S. F.</i> On difficulties in the use of the hydrogen electrode in the measurement of the concentration of hydrogen ions in the presence of organic compounds.....	46,	638
<i>Deventer, C. van</i> and <i>Boltwood, B. B.</i> Physical chemistry for beginners (Review).....	21,	277
—— and <i>Cohen, E.</i> Physikalische Chemie (Review) .....2te Aufl., 27, 424; 3te Aufl.,	38,	250
<i>Dewar, J.</i> Centenary commemoration lecture at the Royal Institute of Great Britain (Note).....	25,	161
<i>Dinsmore, S. C.</i> See <i>Jacobson, C. A.</i>		
<i>Dinwiddie, J. G.</i> and <i>Kastle, J. H.</i> The bromination of phenol.....	46,	502
<i>Ditte, A.</i> Introduction à l'étude des métaux (Review)..	28,	243
—— Étude générale des sels (Review).....	35,	470
<i>Dobbie, J. J.</i> The spectroscope in organic chemistry (Report).....	50,	231

- Dobbin, L.* See *Ladenburg, A.*
- Dodgson, J. W. and Murray, J. A.* A foundation course in chemistry (Review)..... 50, 339
 — See *Hanson, E. K.*
- Doelter, C.* Petrogenesis (Review)..... 36, 522
- Donath, E. and Indra, A.* Die Oxydation des Ammoniaks zu Salpetersäure und Salpetrigersäure (Review).. 50, 476
- Doughty, H. W.* Benzeneselenonic acid and related compounds..... 41, 326
 — See *Weedon, W. S.*
- Douglas, J. M.* See *Jones, H. C.*
- Dreaper, W. P.* The chemistry and physics of dyeing (Review)..... 37, 420
- Dudley, W. L.* The action of fused sodium dioxide on metals. II..... 28, 59
- Duhem, P.* Traité élémentaire de mécanique chimique fondée sur la thermodynamique, Vol. IV (Review)..... 23, 531
 — Thermodynamique et chimie (Review)..... 28, 242
 — and *Burgess, G. K.* Thermodynamics and chemistry (Review)..... 31, 301
- Duisberg, C.* Fortschritte und Probleme der chemischen Industrie (Review)..... 50, 133
- Dunbar, P. B.* See *Morse, H. N.*
- Duncan, R. K.* The new knowledge (Review)..... 34, 355
- Dunlap, F. L.* The action of sulphocarbonyl on certain acid anhydrides..... 21, 528
- Dunnington, F. P. and Hoggard, T.* Thermal effects of the dilution of some salts..... 22, 207
 — John William Mallet (Obituary)..... 49, 69
- Durham, T. C.* See *Bingham, E. C.*
- Dustin, G. K.* See *Wheeler, H. L.*
- Duvivier, C.* Recherches sur la préparation électrolytique des composés du plomb (Review)..... 43, 472
- Dyson, S. S. and Clarkson, S. S.* Chemical works (Review)..... 48, 470
- EARLE, R. B.** See *Jackson, C. L., Stieglitz, J.*
- Ebert, W. and Nussbaum, J.* Hypochlorite und elektrische Bleiche, praktisch-angewandter Teil (Review).... 47, 458
- Eccles, R. G.* Food preservatives (Review)..... 34, 472
- Edgar, G.* The precipitation of vanadic acid as silver vanadate, and the estimation of phosphoric and vanadic acids in the presence of one another..... 44, 466
- Edgerly, D. W.* See *Norris, J. F.*
- Edwards, G. H.* See *Locke, J.*

<i>Effront, J. and Prescott, S. C.</i> Enzymes and their applications (Review).....	29,	85
<i>Ehrenfeld, R.</i> Grundriss einer Entwicklungsgeschichte der chemischen Atomistik (Review).....	36,	527
<i>Eijkman, J. F.</i> Tafeln zum Gebrauche bei der Bestimmung von Brechungsindices (Review).....	48,	551
<i>Eisenlohr, F.</i> See <i>Roth, W. A.</i>		
<i>Elbs, K.</i> Uebungsbeispiele für die elektrolytische Darstellung chemischer Präparate (Review).....	29,	618
— and <i>Hutton, R. S.</i> Electrolytic preparations (Review).....	31,	590
<i>Eliot, C. W., Storer, F. H., Nichols, W. R. and Lindsay, W. B.</i> Compendious manual of qualitative chemical analysis, 19th ed. (Review).....	23,	273
<i>Elliott, A. H. and Ferguson, G. A.</i> A system of instruction in qualitative chemical analysis, 3rd ed. (Review).....	23,	451
<i>Elvøe, E.</i> See <i>Kastle, J. H.</i>		
<i>Emerson, B. K.</i> Helix chemica. A study of the periodic relations of the elements and their graphic representation.....	45,	160
<i>Emmerling, O.</i> Die Zersetzung stickstofffreier organischer Substanzen durch Bakterien (Review).....	29,	87
<i>Ende, C. L. von.</i> See <i>Abegg, R.</i>		
<i>Endemann, H. and Paisley, J. W.</i> On borate of manganese Contribution to the question of the constitution of abiatic acid.....	29,	68
—	33,	523
<i>Engelhardt, V.</i> Hypochlorite und elektrische Bleiche (Review).....	31,	447
— and <i>Richards, J. W.</i> The electrolysis of water (Review).....	31,	589
— See <i>Ulke, T.</i>		
<i>Engler, C. and Weissberg, J.</i> Kritische Studien über die Vorgänge der Autoxydation (Review).....	33,	199
— and <i>Hofer, H. von.</i> Das Erdöl, 1ter Band (Review)..... 1te Abt., 48, 472; 2te Abt., 49,	49,	530
<i>Ephraim, J.</i> Deutsches Patentrecht für Chemiker (Review).....	38,	509
<i>Erdmann, H.</i> Lehrbuch der anorganischen Chemie (Review)..... 2te Aufl., 25, 250; 3te Aufl., 29,	29,	286
— and <i>Köthner, P.</i> Naturkonstanten in alphabetischer Anordnung (Review).....	34,	587
— Lehrbuch der anorganischen Chemie, 4te Aufl. (Review).....	36,	617
— and <i>Corvisy, A.</i> Traité de chimie minérale (Review)..... Tome 1er, 50, 132; Tome 2nd, 50,	50,	488

- Erlwein, G.* See *Uslar, M. von.*
- Euler, H.* Grundlagen und Ergebnisse der Pflanzen-
chemie (Review), 1ter Teil, 41, 445; 2ter, 3ter Teile, 45, 413
- Evans, J. R.* A laboratory handbook for the analysis of
milk, butter and cheese (Review)..... 36, 620
- Evans, P. N. and Vanderkleed, C. E.* Dichloroacetyl
phosphide..... 27, 142
- and *Tilt, J.* Benzophosphide..... 44, 361
- Evans, T. and Snell, J. F.* Laboratory manual of general
chemistry, 4th ed. (Review)..... 36, 526
- Evans, W. L.* On the behavior of benzoyl carbinol to-
wards alkalies and oxidizing agents..... 35, 115
- Evans' Sons, Lescher and Webb.* Evans' analytical notes
for 1912 (Review)..... 50, 134
- Ewell, A. W.* A text-book of physical chemistry theory
and practice (Review)..... 44, 109
- FABER, H. B.** See *Richards, T. W.*
- Fae, G.* See *Thomson, J. J.*
- Fages y Virgili, J. and Mecklenburg, W.* Die indirekten
Methoden der analytischen Chemie (Review)..... 47, 182
- Falk, K. G. and Waters, C. E.* On the action of dry hydro-
chloric acid gas dissolved in anhydrous benzene
on dry zinc..... 31, 398
- Farrington, E. H.* The estimation of fat in sweetened con-
densed milk by the Babcock test..... 24, 267
- Faust, E. S.* Die tierischen Gifte (Review)..... 36, 110
- Fay, H. and North, 2nd, E.* On the nature of lead amalgams 25, 216
- and *Gillson, C. B.* The alloys of lead and
tellurium..... 27, 81
- and *Ashley, H. E.* The alloys of antimony and
tellurium..... 27, 95
- Charles Benjamin Dudley (Obituary)..... 43, 279
- See *Norris, J. F.*
- Fay, I. W.* The chemistry of the coal-tar dyes (Review) 46, 534
- Feilmann, E.* See *Molinari, E.*
- Feinberg, B. G.* A quantitative study of some aldehyde
reactions..... 49, 87
- Ferchland, P.* Grundriss der reinen und angewandten
Elektrochemie (Review)..... 31, 189
- Die elektrochemische Industrie Deutschlands
(Review)..... 32, 408
- and *Rehlander, P.* Die elektrochemischen deut-
schen Reichspatente (Review)..... 37, 547
- Die englischen elektrochemischen Patente (Re-
view)..... 1ter Band, 40, 215; 2ter Band, 42, 291

<i>Ferguson, G. A.</i> See <i>Elliott, A. H.</i>	
<i>Fernbach, R. L.</i> Glues and gelatine (Review), 38, 382; 39,	312
<i>Findlay, A.</i> The phase rule and its applications (Review).....	32, 183
— Practical physical chemistry (Review).....	38, 252
— See <i>Ostwald, Wilhelm.</i>	
<i>Finkelstein, A.</i> See <i>Arrhenius, S.</i>	
<i>Finkelstein, B.</i> See <i>Rutherford, E.</i>	
<i>Fischer, A.</i> Elektroanalytische Schnellmethoden (Review).....	41, 161
<i>Fischer, F.</i> Kraftgas (Review).....	45, 615
<i>Fischer, H.</i> Mischen, Rühren, Kneten (Review).....	47, 352
<i>Fischer, M. H.</i> See <i>Cohen, E., Pauli, W.</i>	
<i>Fiske, A. H.</i> An apparatus for the extraction of liquids with ether.....	41, 510
— See <i>Jackson, C. L.</i>	
<i>Fireman, E.</i> and <i>Fireman, P.</i> The action of phosphonium iodide on polychlorides. I.....	30, 116
<i>Fireman, P.</i> See <i>Fireman, E.</i>	
<i>Fitz-Gerald, F. A. J.</i> and <i>Hulth, M.</i> Künstlicher Graphit (Review).....	33, 520
<i>Flint, H. A.</i> See <i>Jackson, C. L.</i>	
<i>Foerster, F.</i> Beiträge zur Kenntniss des elektrochemischen Verhaltens des Eisens (Review).....	44, 208
<i>Foglesong, J. E.</i> See <i>Garner, J. B.</i>	
<i>Foot, H. W.</i> On the mixed crystals of copper sulphate and zinc sulphate.....	26, 418
— On the mixed crystals of silver chlorate and sodium chloride, and their solutions.....	27, 345
— On the iodides of caesium.....	29, 203
— On the thiocyanates of silver and potassium and their solubility.....	30, 330
— On the double caesium and mercuric chlorides and their solubility.....	30, 339
— and <i>Bristol, H. S.</i> On the solubility of barium and mercuric chlorides.....	32, 246
— On the solubility of potassium and barium nitrates and chlorides.....	32, 251
— and <i>Andrew, I. A.</i> The acid oxalates of lithium, sodium, potassium and caesium and their solubility.....	34, 153
— and <i>Andrew, I. A.</i> On certain alleged double oxalates.....	34, 164
— and <i>Levy, L. H.</i> The double salts of mercuric chloride with the alkali chlorides and their solubility	35, 236

- Foote, H. W. and Menge, G. A.* The relative solubility of some difficultly soluble calcium and barium salts 35, 432
 — and *Levy, L. H.* The double ammonium lead chlorides..... 37, 119
 — The double caesium lead bromides..... 37, 124
 — and *Levy, L. H.* On the molecular condition of salts dissolved in a fused salt..... 37, 494
 — and *Chalker, W. C.* The polyiodides of potassium, rubidium and caesium..... 39, 561
 — and *Martin, N. A.* On the molecular condition of salts dissolved in a fused salt. II. The electrical conductivity of salts in fused mercuric chloride..... 41, 451
- Forder, S. W.* See *Keiser, E. H.*
- Formánek, J. and Grandmougin, E.* Untersuchung und Nachweis organischer Farbstoffe auf spektrochemischem Wege, 2te Aufl. (Review)..... 1ter Teil, 42, 180; 2ter Teil, 50, 474
 ————— 31, 680
 — See *Locke, J.*
- Fortescue-Brickdale, J. M.* See *Francis, F.*
- Foulk, C. W.* Introductory notes on quantitative chemical analysis, 2nd ed. (Review)..... 45, 612
- Fowler, G. J.* An introduction to bacteriological and enzyme chemistry (Review)..... 46, 415
- Fränkel, S.* Descriptive Biochemie (Review)..... 39, 799
- Francis, F. and Fortescue-Brickdale, J. M.* The chemical basis of pharmacology (Review)..... 41, 78
- Franck, L.* See *Jellett, J. H.*
- Frankforter, G. B. and Mayo, A. D.* Some derivatives of camphoroxime..... 21, 471
 — and *Glasoe, P. M.* Camphoroxime derivatives... 21, 474
 — and *Keller, F. H.* Narcotine and narceine..... 22, 61
- Franklin, A. I.* See *Norris, J. F.*
- Franklin, D. R.* See *Norris, J. F.*
- Franklin, E. C. and Kraus, C. A.* Metathetic reactions between certain salts in solution in liquid ammonia 21, 1
 — and *Kraus, C. A.* Some properties of liquid ammonia..... 21, 8
 — and *Kraus, C. A.* The electrical conductivity of liquid ammonia solutions..... 23, 277
 — and *Kraus, C. A.* The conductivity temperature coefficient of some liquid ammonia solutions..... 24, 83
 — and *Stafford, O. F.* Reactions between acid and basic amides in liquid ammonia..... 28, 83
 — The ammonia system of acids, bases and salts 47, 285
 — A theory of the mercury ammonia compounds... 47, 361

Fraprie, F. R. See *Richards, T. W.*

<i>Fraps, G. S.</i> The supposed isomeric potassium sodium sulphites.....	23,	202
— The purification of phloroglucinol.....	24,	270
— The wide occurrence of indicators in nature.....	24,	271
— The composition of a wood oil.....	25,	26
— The determination of pentosans.....	25,	501
— The solubility of barium sulphate in ferric chloride, aluminium chloride and magnesium chloride.....	27,	288
— Studies in nitrification.....	29,	225
— Principles of dyeing (Review).....	30,	541
— Factors of availability of plant food.....	32,	1
— A simple fat extraction apparatus.....	37,	85
— The ammonia-soluble phosphoric acid of the soil.....	39,	579
— Principles of agricultural chemistry (Review).....	50,	337
— See <i>Deiler, A. C.</i>		

Frary, G. C. See *Cook, A. N.*

<i>Frazer, J. C. W.</i> Asymmetric optically active sulphur compounds (Note).....	25,	167
— Ammonium amalgam (Note).....	25,	431
— On relations between the color and the composition and constitution of the alkali salts of the nitrophenols.....	30,	309
— Comparative study of the <i>m</i> -sulphaminebenzoic acids made by different methods.....	30,	323
— and <i>Holmes, H. N.</i> Electric osmose (preliminary communication).....	40,	319
— See <i>Chambers, V. J., Morse, H. N.</i>		

<i>Freer, P. C.</i> On the constitution of the phenylhydrazones.....	21,	14
— and <i>Higley, G. O.</i> The action of metals on nitric acid.....	21,	377
— The action of benzoyl chloride on the phenylhydrazones of benzoin.....	22,	396
— and <i>Clover, A. M.</i> On the constituents of Jamaica dogwood.....	25,	390
— and <i>Novy, F. G.</i> On the formation, decomposition and germicidal action of benzoyl acetyl and diacetyl peroxides.....	27,	161
— See <i>Bacon, R. F.</i>		

<i>Freiherr, O.</i> Die physikalischen Eigenschaften der Seen (Review).....	34,	587
---	-----	-----

French, P. R. See *Mulliken, S. P.*

<i>Fresenius, C. R. and Cohn, A. I.</i> Quantitative chemical analysis (Review).....	32,	181
--	-----	-----

<i>Freund, I.</i> The study of chemical composition (Review).....	34,	256
---	-----	-----

<i>Freundlich, H.</i> Kapillarchemie (Review).....	46,	533
<i>Frevert, H. L.</i> See <i>Baxter, G. P.</i>		
<i>Fritsch, J. and Grant, D.</i> The manufacture of chemical manures (Review).....	47,	356
<i>Fröhlich, O.</i> Die Entwicklung der elektrischen Messungen (Review).....	34,	590
<i>Frühling, R.</i> Anleitung zur Untersuchung der für die Zuckerindustrie in Betracht kommenden Rohmaterialien, Produkte, Nebenprodukte und Hilfs-substanzen, 6te Aufl. (Review).....	30,	245
<i>Fry, G.</i> The varnishes of the Italian violin makers of the XVI and XVII centuries (Review).....	34,	170
<i>Fukui, M.</i> See <i>Kuhara, M.</i>		
<i>Fuller, G. P.</i> See <i>Cobb, P. H.</i>		
<i>Fuller, R. W.</i> See <i>Jackson, C. L.</i>		
GARNER, J. B. Some Δ^2 -keto-R-hexene derivatives.....	31,	143
—— Some reactions of benzoïn.....	32,	583
—— and <i>King, W. E.</i> The germicidal action of potassium permanganate.....	35,	144
—— <i>Saxton, B. and Parker, H. O.</i> Anhydrous formic acid (preliminary paper).....	46,	236
—— <i>Foglesong, J. E. and Wilson, R.</i> Reduction of mercuric chloride by phosphorous acid and the law of mass action.....	46,	361
—— Reduction of mercuric chloride by phosphorous acid and the law of mass action.....	46,	648
<i>Garner, W. W.</i> See <i>Michael, A., Remsen, I.</i>		
<i>Garvin, J. B.</i> A brief course in qualitative chemical analysis (Review).....	29,	514
<i>Gascoyne, W. J.</i> See <i>Battle, H. B.</i>		
<i>Gattermann, L. and Schober, W. B.</i> The practical methods of organic chemistry, 2nd American ed. (Review)	27,	158
<i>Gaubert, M. P.</i> Recherches récentes sur les facies des cristaux (Review).....	47,	530
<i>Gautier, D.</i> See <i>Thomas, V.</i>		
<i>Gautier, L.</i> See <i>Post, J.</i>		
<i>Gazzolo, F. H.</i> See <i>Jackson, C. L.</i>		
<i>Geitler, J. R. von.</i> Elektromagnetische Schwingungen und Wellen (Review).....	35,	193
<i>Gerdes, P.</i> Einführung in die Elektrochemie (Review)...	30,	82
<i>Gere, M. C.</i> See <i>Avery, S.</i>		
<i>Getman, F. H.</i> The elements of blowpipe analysis (Review).....	22,	331
—— Laboratory exercises in physical chemistry (Review).....	32,	296

<i>Getman, F. H. and Wilson, F. B.</i> A study of the refractive indices of some solutions.....	40,	468
— Laboratory exercises in physical chemistry, 2nd ed. (Review).....	40,	490
— and <i>Wilson, F. B.</i> Note on solubility determinations with the refractometer.....	41,	344
— A study of the surface tensions of some unsaturated organic compounds.....	44,	145
— An introduction to physical science (Review)....	44,	388
— A study of the optical properties of some unsaturated ketones.....	45,	539
— Differences of potential between cadmium and alcoholic solutions of some of its salts.....	46,	117
— and <i>Gibbons, V. L.</i> Potentials of zinc in alcoholic solutions of zinc chloride.....	48,	124
— and <i>Gilroy, H. T.</i> A study of the refractive indices of solutions of the cadmium halides.....	48,	138
— Outlines of theoretical chemistry (Review).....	50,	469
— See <i>Jones, H. C.</i>		
<i>Gibbons, V. L.</i> See <i>Getman, F. H.</i>		
<i>Gibbs, W. E.</i> Lighting by acetylene, 2nd ed. (Review)	21,	277
<i>Gibson, C. B.</i> See <i>Rüdröff, F.</i>		
<i>Gibson, J. A.</i> See <i>Torrey, H. A.</i>		
<i>Gilbert, J. W.</i> On the molecular rearrangement of tribromphenolbromide by means of sulphuric acid.....	27,	43
<i>Gildemeister, E. and Hoffmann, F.</i> Die aetherischen Oele (Review).....	25,	168
— <i>Hoffmann, F. and Kremers, E.</i> The volatile oils (Review).....	25, 168; 1st vol., 2nd ed., 50,	337
<i>Gill, A. H.</i> A short handbook of oil analysis (Review).....	3rd ed., 31, 681; 5th ed., 43, 283; 6th ed., 46,	216
<i>Gill, E. E.</i> See <i>Morse, H. N.</i>		
<i>Gillson, C. B.</i> See <i>Fay, H.</i>		
<i>Gilman, A. F.</i> A laboratory outline for determinations in quantitative chemical analysis (Review).....	40,	413
<i>Gilpin, J. E.</i> Gases of the atmosphere (Report).....	21,	446
— Artificial indigo (Report).....	21,	448
— The Hodgkins medal (Note).....	21,	537
— Gases of the argon-helium type (Note).....	21,	538
— Liquid air machines (Note).....	21,	538
— Charles Friedel (Obituary).....	22,	87
— Quadrivalence of oxygen (Report).....	22,	242
— Edward Frankland (Obituary).....	22,	410
— Robert Wilhelm Bunsen (Obituary).....	22,	411
— Solid hydrogen (Note).....	22,	493

<i>Gilpin, J. E.</i> Johann Carl Wilhelm Ferdinand Tiemann		
(Obituary).....	23,	178
— Adolf Claus (Obituary).....	24,	94
— Édouard Grimaux (Obituary).....	24,	94
— Metallic calcium and some of its compounds		
(Note).....	24,	96
— Sir John Bennet Laws (Obituary).....	24,	466
— Notes on industrial chemistry (Note).....	24,	530
— Fluosilicic acid as a preservative of manure		
(Note).....	25,	166
— A recent view of atomic structure (Report)....	25,	340
— Combustible gases in the atmosphere (Report)....	25,	344
— The Lavoisier statue in Paris (Note).....	25,	435
— The action of water upon rocks (Report).....	25,	511
— Sulphuric acid and its preparation by the con-		
tact method (Report).....	27,	227
— Action of phosphorus pentachloride on aniline....	27,	444
— A new method for the preparation of unsaturated		
hydrocarbons (Report).....	27,	494
— The luminosity of mantles (Report).....	29,	387
— A revision of the atomic weights of sodium and		
chlorine (Report).....	34,	99
— The rusting of iron (Report).....	35,	88
— Stibine and the allotropic varieties of arsenic and		
antimony (Report).....	35,	287
— The atomic weight of nitrogen (Report).....	35,	458
— The interaction of chlorine and hydrogen (Re-		
port).....	36,	612
— The alkylation of metallic cyanides (Report)....	37,	543
— The atomic weight of tellurium (Report).....	39,	658
— and <i>Cram, M. P.</i> The fractionation of crude		
petroleum by capillary diffusion.....	40,	495
— The origin of petroleum (Report).....	41,	67
— The preparation of alcohol and artificial silk from		
cellulose (Report).....	43,	466
— and <i>Bransky, O. E.</i> The diffusion of crude petro-		
leum through fuller's earth.....	44,	251
— and <i>Schneeberger, P.</i> Fractionation of California		
petroleum by diffusion through fuller's earth.....	50,	59
<i>Gilroy, H. T.</i> See <i>Getman, F. H.</i>		
<i>Girard, C.</i> Analyse des matières alimentaires, 2me éd.		
(Review).....	32,	516
— See <i>Haller, A.</i>		
<i>Giua, M.</i> See <i>Jones, H. C.</i>		
<i>Given, A.</i> Methods for sugar analysis (Review).....	48,	469
<i>Glasoe, P. M.</i> See <i>Frankforter, G. B.</i>		

<i>Glattfeld, J. W. E.</i> On the oxidation of <i>d</i> -glucose in alkaline solution by air as well as by hydrogen peroxide	50,	135
<i>Gleditsch, Mlle.</i> See <i>Curie, Mme. P.</i>		
<i>Godfrey, H.</i> Elementary chemistry (Review).....	44,	111
<i>Goldstein, A. H.</i> See <i>Mabery, C. F.</i>		
<i>Goldthwaite, N. E.</i> On substituted benzhydrol derivatives and cyanbromacetic ether.....	30,	447
<i>Gomberg, M.</i> Diazocaffeine.....	23,	51
— On trivalent carbon (reply to J. F. Norris)....	25,	317
— The action of zinc on triphenylchlormethane....	29,	364
<i>Gooch, F. A. and Walker, C. F.</i> Outlines of inorganic chemistry (Review).....	34,	588
— and <i>Walker, C. F.</i> Laboratory experiments to accompany outlines of inorganic chemistry (Review).....	35,	473
— and <i>Browning, P. E.</i> Outlines of qualitative chemical analysis (Review).....	37,	548
— Methods in chemical analysis (Review).....	50,	335
<i>Goodwin, H. M.</i> The fundamental laws of electrolytic conduction (Review).....	22,	413
<i>Gordin, H. M.</i> Elementary chemistry, Vol. I (Review)..	50,	470
<i>Gore, H. S.</i> See <i>McPherson, W.</i>		
<i>Gorsline, E. E.</i> See <i>Tingle, J. B.</i>		
<i>Gortner, R. A.</i> Some effects of sunlight upon colorless glass	39,	157
— See <i>Alway, F. J., Clark, L. L.</i>		
<i>Gottschalk, V. H.</i> See <i>Allen, E. T.</i>		
<i>Graham, M. A.</i> A study of the change from violet to green in solutions of chromium sulphate.....	48,	145
— See <i>Horn, D. W.</i>		
<i>Graham, T. and Jordis, E.</i> Abhandlungen über Dialyse (Review).....	47,	268
<i>Grandmougin, E.</i> See <i>Formánek, J.</i>		
<i>Grant, D.</i> See <i>Fritsch, J.</i>		
<i>Grant, J.</i> The chemistry of bread-making (Review)....	48,	194
<i>Gray, C. W.</i> See <i>Morse, H. N.</i>		
<i>Gray, R. W. and Ramsay, W.</i> The density of niton ("radium emanation") and the disintegration theory (Note).....	47,	251
<i>Green, E. H.</i> See <i>Norris, J. F.</i>		
<i>Green, J. R.</i> The soluble ferments and fermentation (Review).....	23,	86
<i>Green, W. V.</i> 1,3,5-Triiod-2-chlorbenzene.....	36,	600
<i>Greenish, H. G.</i> A microscopical examination of foods and drugs, 2nd ed. (Review).....	47,	269
<i>Gregory, J. C.</i> A short introduction to the theory of electrolytic dissociation (Review).....	34,	474

<i>Greinacher, H.</i> Die neueren Fortschritte auf dem Gebiete der Radioaktivität (Review).....	42,	291
<i>Griffin, R. C.</i> See <i>Baxter, G. P.</i>		
<i>Grossmann, H.</i> Die chemische Industrie in den Vereinigten Staaten (Review).....	49,	167
<i>Grossman, J.</i> The elements of chemical engineering (Review).....	37,	116
<i>Groth, P.</i> Einleitung in die chemische Krystallographie (Review).....	34,	102
<i>Grünwald, F.</i> Die Herstellung der Akkumulatoren, 3te Aufl. (Review).....	31,	82
<i>Günther, E.</i> Die Darstellung des Zinks auf elektrolytischem Wege (Review).....	33,	608
<i>Guertler, W.</i> Metallographie, 1ter Band, 1tes Heft (Review).....	43,	389
<i>Guest, H. H.</i> See <i>Johnson, T. B.</i>		
<i>Guttmann, L. F.</i> Percentage tables for elementary analysis (Review).....	34,	260
<i>Guy, J. S. and Jones, H. C.</i> Conductivity and viscosity in mixed solvents containing glycerol.....	46,	131
—— <i>Shaeffer, E. J. and Jones, H. C.</i> The absorption of light by water changed by the presence of strongly hydrated salts, as shown by the radiomicrometer—new evidence for the solvate theory of solution....	49,	265
—— and <i>Jones, H. C.</i> A quantitative study of absorption spectra by means of the radiomicrometer....	50,	257
—— See <i>Jones, H. C.</i>		
<i>Guye, P. A.</i> Journal de chimie physique (Review).....	31,	298
<i>HAAS, P. and Hill, T. G.</i> An introduction to the chemistry of plant products (Review).....	50,	484
<i>Haber, F.</i> Thermodynamik technischer Gasreaktionen (Review).....	34,	591
—— and <i>Lamb, A. B.</i> Thermodynamics of technical gas reactions (Review).....	41,	557
—— See <i>Smith, A.</i>		
<i>Haden, R. L.</i> See <i>Kastle, J. H.</i>		
<i>Hahn, D. A. and Allbee, A. G.</i> Saturated δ -ketonic esters and their derivatives.....	49,	171
<i>Hale, A. J.</i> Practical chemistry for engineering students (Review).....	49,	74
<i>Hale, F. E.</i> On the relation of hydriodic acid and of its salts to the starch and dextrin iodides.....	28,	438
<i>Hale, W. J., McNally, W. D. and Pater, C. J.</i> Grignard syntheses in the furfuran group.....	35,	68

<i>Hale, W. J. and Robertson, C. A.</i> On the condensation of nitromalonic aldehyde with acetonylacetone. I. . . .	39,	680
— The calculations of general chemistry (Review). . . .	43,	565
— See <i>Hill, H. B., Phelps, I. K., Smith, A.</i>		
<i>Hall, E. H.</i> See <i>Smith, A.</i>		
<i>Hall, V. J.</i> Chemistry and metallurgy applied to dentistry (Review).	22,	244
<i>Hall, W. T.</i> See <i>Abderhalden E., Biltz, H., Classen, A., Classen, H., Treadwell, F. P.</i>		
<i>Hallard, A. and Bertiaux, L.</i> Analyse des métaux par électrolyse, 2me éd. (Review).	43,	565
<i>Haller, A. and Girard, C.</i> Memento du chimiste (Review) . . .	40,	129
<i>Halligan, J. E.</i> Fertility and fertilizer hints (Review) . . .	47,	531
<i>Hamburger, A.</i> See <i>Arrhenius, S.</i>		
<i>Hammer, W. J.</i> Radium and other radio-active substances (Review).	31,	83
<i>Hanson, E. K. and Dodgson, J. W.</i> An intermediate course of laboratory work in chemistry (Review) . .	42,	476
<i>Harden, A.</i> Alcoholic fermentation (Review).	46,	414
<i>Hardenbergh, H.</i> See <i>Torrey, H. A.</i>		
<i>Hardin, W. L.</i> The rise and development of the liquefaction of gases (Review).	22,	413
<i>Harrison, J. P.</i> See <i>Marshall, E. K., Jr.</i>		
<i>Hart, E.</i> Second year chemistry (Review).	35,	370
— Chemistry for beginners. I. Inorganic, 5th ed. (Review).	46,	215
<i>Hart, E. B. and Andrews, W. H.</i> The status of phosphorus in certain food materials and animal by-products with special reference to the presence of inorganic forms.	30,	470
— See <i>Patten, A. J., Van Slyke, L. L.</i>		
<i>Hartmann, K.</i> Sicherheitseinrichtungen in chemischen Betrieben (Review).	47,	271
<i>Haselhoff, E. and Lindau, G.</i> Die Beschädigung der Vegetation durch Rauch (Review).	30,	85
<i>Haskins, H. D. and MacLeod, J. J.</i> Organic chemistry (Review).	40,	128
<i>Hatschek, E.</i> An introduction to the physics and chemistry of colloids (Review).	50,	58
<i>Hauser, O.</i> See <i>Meyer, R. J.</i>		
<i>Hazen, A.</i> Clean water and how to get it (Review). . . .	39,	434
<i>Hecker, C. H.</i> A study of some new alkylhydroxylamines. . .	50,	443
<i>Hedley, E. P.</i> See <i>Werner, A.</i>		
<i>Heess, J. K.</i> Practical methods for the iron and steel works' chemist (Review).	40,	494
<i>Heilbron, I. M.</i> See <i>Neave, G. B., Wilson, F. J.</i>		

- Heitman, A. H. C.* See *Clemmensen, E.*
- Hempel, W. and Dennis, L. M.* Methods of gas analysis (Review)..... 28, 494
- Henderson, W. E.* Reaction of *o*-diazobenzoic acid with sulphurous acid and copper powder..... 21, 206
- A further investigation of the symmetrical chloride of *p*-nitro-*o*-sulphobenzoic acid..... 25, 1
- See *McPherson, W.*
- Hendrixson, W. S.* A method for the determination of chloric acid..... 32, 242
- Henle, F. W.* Anleitung für das organisch präparative Praktikum (Review)..... 42, 373
- Henri, V.* Lois générales de l'action des diastases (Review)..... 30, 443
- Henrich, F.* Neuere theoretische Anschauungen auf dem Gebiete der organischen Chemie (Review)..... 42, 372
- Theorien der organischen Chemie (Review)..... 50, 52
- Henry, T. A.* The plant alkaloids (Review)..... 50, 57
- Heritage, G.* See *Kohler, E. P.*
- Herz, W. and Philippi, E.* Les bases physico-chimiques de la chimie analytique (Review)..... 43, 184
- Herzog, M.* See *Robertson, W.*
- Hessler, J. C.* On alkyl malonic nitriles and their derivatives..... 22, 169
- On phenylmalonic nitrile..... Preliminary paper, 32, 119; II, 39, 63
- Heuser, E. J.* Die Apparatfärberei der Baumwolle und Wolle (Review)..... 50, 473
- Heyl, F. W.* See *Johnson, T. B., Raiford, C. L.*
- Hickey, C. H.* See *Baxter, G. P.*
- Higbee, H. H.* The double halides of antimony with aniline and the toluidines..... 23, 150
- Higgins, L. D.* Physics and chemistry (Review)..... 36, 221
- Higley, G. O.* See *Freer, P. C.*
- Higley, L. A.* On the behavior of sodium and sodium alcohates towards various esters of acetic acid..... 37, 293
- Hilditch, T. P.* A concise history of chemistry (Review). 48, 552
- Hill, A. E.* A brief laboratory guide for qualitative analysis (Review)..... 47, 532
- Hill, A. J.* See *Johnson, T. B.*
- Hill, H. B. and Torrey, Jr., J.* On nitromalonic aldehyde. 22, 89
- On nitromalonic aldehyde. II..... 24, 1
- On dehydromucic acid..... 25, 439
- and *Wheeler, A. S.* On the reduction of dehydromucic acid..... 25, 463
- and *White, G. R.* On δ -nitropyromucic acid.... 27, 193

<i>Hill, H. B. and Hale, W. J.</i> On the oximes of nitromalonic aldehyde.....	29,	253
— and <i>Black, O. F.</i> On the preparation of formiminoethyl ether.....	31,	207
— and <i>Sylvester, J. P.</i> On certain sulphamido derivatives of furfurane.....	32,	185
— and <i>Black, O. F.</i> On the action of potassic nitrite on mucobromic ester.....	32,	228
— and <i>Hale, W. J.</i> On the condensation of nitromalonic aldehyde with benzylmethyl ketone.....	33,	1
— and <i>Black, O. F.</i> On 4-nitro-5-pyrazolone.....	33,	292
— and <i>Russe, F. W.</i> On the optically active isomers of the β -dihydrofurfuran- α, α' -dicarboxylic acid....	33,	372
<i>Hill, T. G.</i> See <i>Haas, P.</i>		
<i>Hillyer, H. W.</i> Laboratory manual (Review).....	22,	331
— Action of picryl chloride on pyrocatechin in presence of alkalies.....	23,	125
— Phenoxozone derivatives.....	26,	361
— See <i>Benson, G., Cook, A. N.</i>		
<i>Hilpert, W. S.</i> Stereoisomeric chlorimido acid esters....	40,	150
<i>Hinds, J. I. D.</i> Chemistry by observation, experiment, and induction (Review).....	29,	514
— Qualitative chemical analysis (Review).....	45,	414
<i>Hines, M. A.</i> See <i>Baxter, G. P.</i>		
<i>Hinkins, J. E.</i> Formation of acids by enzymes.....	33,	164
— See <i>Acree, S. F.</i>		
<i>Hite, B. H.</i> A method for carrying out chemical reactions under high pressures.....	22,	80
<i>Höfer, H. von.</i> Das Erdöl, 3te Aufl. (Review).....	49,	341
— See <i>Engler, C.</i>		
<i>Höhnel, F. R. V.</i> Die Mikroskopie der technisch verwendeten Faserstoffe, 2te Aufl. (Review).....	35,	474
<i>Hoff, J. H. van't and Corvisy, A.</i> Leçons de chimie physique (Review)...2me partie, 23, 531; 3me partie, 24,		534
— and <i>Smith A.</i> Physical chemistry in the service of the sciences (Review).....	31,	680
— Zur Bildung der ozeanischen Salzablagerungen, 1tes Heft (Review).....	34,	260
— Die Lagerung der Atome im Raume, 3te Aufl. (Review).....	42,	95
— Die chemischen Grundlehren nach Menge, Mass und Zeit (Review).....	48,	265
— <i>Precht, H. and Cohen, E.</i> Untersuchungen über die Bildungsverhältnisse der ozeanischen Salzablagerungen (Review).....	49,	339
<i>Hoffman, C.</i> See <i>Johnson, T. B., Wheeler, H. L.</i>		

- Hoffman, E. J.* The physical and chemical properties of iron carbonyl (Report)..... 35, 469
 — See *Morse, H. N.*
- Hoffman, W. E., Jr.* See *Tingle, J. B.*
- Hoffmann, Friedrich.* See *Gildemeister, E.*
- Hoffmann, Fritz.* Atomprozente und Gewichtsprozente (Review)..... 49, 428
- Hoggard, T.* See *Dunnington, F. P.*
- Holborn, L.* See *Kohlrausch, F.*
- Holland, J. W.* The urine and the clinical chemistry of the gastric contents, 7th ed. (Review)..... 33, 433
- Holland, W. W.* See *Morse, H. N.*
- Hollard, A. and Bertiaux, L.* Analyse des métaux par électrolyse (Review)..... 37, 114
- Holleman, A. F. and Manchot, W.* Lehrbuch der anorganischen Chemie (Review)..... 27, 159
 — and *Cooper, H. C.* A text-book of inorganic chemistry (Review)..... 28, 241
 — *Walker, A. J. and Mott, O. E.* A text-book of organic chemistry (Review)..... 31, 190
 — and *Walker, A. J.* A laboratory manual of organic chemistry for beginners (Review)..... 33, 98
 — *Walker, A. J. and Mott, O. E.* A text-book of organic chemistry, 2nd English ed. (Review)..... 40, 127
 — and *Cooper, H. C.* A text-book of inorganic chemistry, 3rd English ed. (Review)..... 41, 559
 — *Walker, A. J. and Mott, O. E.* A text-book of organic chemistry, 3rd English ed. (Review)..... 45, 537
 — Die direkte Einführung von Substituenten in den Benzolkern (Review)..... 46, 309
 — and *Cooper, H. C.* A text-book of inorganic chemistry, 4th English ed. (Review)..... 48, 102
- Holley, C. D. and Ladd, E. F.* Analysis of mixed paints, color pigments and varnishes (Review)..... 40, 215
- Hollis, F. S.* The symmetrical chloride of *p*-nitro-*o*-sulphobenzoic acid..... 23, 233
- Holmes, H. N.* Atmospheric ozone..... 47, 497
 — See *Frazer, J. C. W.*
- Holmes, W. B.* On the action of the chlorides of *o*-sulphobenzoic and of *p*-nitro-*o*-sulphobenzoic acids on urea. 25, 202
 — Action of aniline upon the chlorides of *o*-sulphobenzoic acid..... 30, 273
- Hopkins, A. J.* A dissolver..... 22, 407
 — The crystallization of copper sulphate..... 25, 413
- Hopkins, B. S.* See *Morse, H. N.*
- Hopkins, E.* The oil chemist's handbook (Review)..... 25, 82

<i>Hopkins, N. M.</i> Experimental electrochemistry (Review).....	35,	549
<i>Horn, D. W.</i> Barium sulphate in gravimetric analysis (Report).....	27,	495
— Gravimetric determination of sulphuric acid in the presence of iron (Report).....	27,	500
— and <i>Van Wagener, E. M.</i> A method for calibrating burettes.....	30,	96
— and <i>Van Wagener, E. M.</i> The solubility-curve of sodium tetraborate.....	30,	344
— and <i>Taylor, E. E.</i> On some cuprammonium sulphates.....	32,	253
— Variable sensitiveness in the colorimetry of chromium.....	35,	253
— On some cuprammonium salts.....	35,	271
— and <i>Blake, S. A.</i> Variable sensitiveness in colorimetry.....	II, 36, 195; III, 36,	516
— On some cuprammonium salts. III.....	37,	467
— The determination of transition temperatures....	37,	619
— On some cuprammonium salts....	IV, 38, 475; V, 39,	184
— and <i>Graham, M. A.</i> On some cuprammonium salts. VI.....	39,	505
— See <i>Morse, H. N.</i>		
<i>Hosford, H. H.</i> and <i>Jones, H. C.</i> The conductivities, temperature coefficients of conductivity and dissociation of certain electrolytes.....	46,	240
<i>Houghton, A. C.</i> See <i>Clover, A. M.</i>		
<i>Howard, S. F.</i> and <i>Jones, H. C.</i> The conductivity, temperature coefficients of conductivity and dissociation of certain electrolytes in aqueous solution at 35°, 50° and 65°.....	48,	500
<i>Howe, J. L.</i> Werner's theory of the constitution of inorganic compounds (Report).....	22,	312
— The oxygen bases (Report).....	27,	311
— Recent advances in our knowledge of the metals of the platinum group, 1897-1903 (Report).....	31,	63
— Inorganic chemistry (Review).....	38,	251
— See <i>Blochmann, R.</i>		
<i>Hoyt, W. F.</i> Manual of qualitative analysis (Review)...	50,	55
<i>Hudson, E. F.</i> See <i>Mabery, C. F.</i>		
<i>Hughes, A. M.</i> and <i>Stern, R.</i> A method of teaching chemistry in schools (Review).....	37,	664
<i>Humphreys, R. E.</i> The action of phenol on the chlorides of <i>o</i> -sulphobenzoic acid.....	30,	292
<i>Hunt, C.</i> Gas lighting (Review).....	25,	80

- Hupfel, O. G. and Wells, H. L.* Caesium-silver-barium thiocyanate, $\text{Cs}_3\text{BaAg}_2(\text{SCN})_7$ 28, 272
- Hurst, G. H. and Leask, H.* Lubricating oils, fats and greases, 3rd ed. (Review)..... 47, 355
- Hulth, M.* See *Fitz-Gerald, F. A. J., Pitaval, M. R.*
- Hutton, R. S.* See *Elbs, K.*
- Hyde, E. P.* See *Jones, H. C.*
- IDDINGS, J. P. See *Cross, W.*
- Indra, A.* See *Donath, E.*
- Irish C. W.* Qualitative analysis for secondary schools (Review)..... 22, 168
- Istrati, C.-I., Longinescu, G.-G. and Adams, A.* Cours élémentaire de chimie et de minéralogie, 2me éd. française (Review)..... 50, 471
- Ittner, M. H.* A modification of the Bunsen vacuum pump 24, 253
- JACKSON, C. L. and *Phinney, J. I.* Trinitrophenylmalonic ester. II..... 21, 418
- and *Koch, W.* On the action of sodic ethylate on tribromdinitrobenzol..... 21, 510
- and *Gazzolo, F. H.* On certain derivatives of symmetrical trichlorbenzol..... 22, 54
- and *Gazzolo, F. H.* On certain colored substances derived from nitro compounds. III..... 23, 376
- and *Fuller, R. W.* Note on the constitution of di-*p*-brombenzylcyanamide..... 23, 494
- and *Derby, I. H.* Ferrous iodide..... 24, 15
- and *Cohoe, W. P.* Certain derivatives of *m*-dibromdinitrobenzol..... 26, 1
- and *Koch, W.* On certain derivatives of *o*-benzoquinone..... 26, 10
- and *Earle, R. B.* On the action of sodic sulphite on tribromdinitrobenzol and tribromtrinitrobenzol. 26, 46
- and *Behr, G. E.* Symmetrical triiodbenzol..... 26, 55
- and *Calhane, D. F.* On the dibromdinitrobenzols derived from *p*-dibrombenzol. II..... 28, 451
- and *Earle, R. B.* On certain colored substances derived from nitro compounds. IV..... 29, 89
- and *Earle, R. B.* On certain derivatives of picric acid..... 29, 212
- and *Earle, R. B.* On symmetrical dinitrobenzol-sulphonic acid..... 29, 216
- and *Fiske, A. H.* On certain nitro derivatives of the vicinal tribrombenzol..... 30, 53
- Henry Barker Hill (Obituary)..... 30, 80

<i>Jackson, C. L. and Porter, H. C.</i> On the action of aniline upon tetrabrom- <i>o</i> -benzoquinone	30,	518
— and <i>Porter, H. C.</i> On certain addition compounds derived from <i>o</i> -benzoquinone.....	31,	89
— and <i>Calhane, D. F.</i> The action of bromine on 2,6-dibrom- <i>p</i> -phenylenediamine.....	31,	209
— and <i>Carlton, H. A.</i> On tetrachlordinitrobenzol.....	31,	360
— and <i>Smith, P. S.</i> On certain derivatives of trichlortrinitrobenzol.....	32,	168
— and <i>Langmaid, J. F.</i> On certain derivatives of 1,3,5-triiod-2,4-dinitrobenzol.....	32,	297
— and <i>Clarke, L.</i> Bromine addition compounds of dimethylaniline.....	34,	261
— and <i>Carlton, H. A.</i> On certain derivatives of tetrabrom- <i>o</i> -benzoquinone.....	34,	422
— and <i>Clarke, L.</i> Addition-compounds of quinones and tertiary amines.....	34,	441
— and <i>Shaffer, P. A.</i> The action of methyl alcohol on hexabrom- <i>o</i> -quinopyrocatechin ether	34,	460
— and <i>Russe, F. W.</i> On <i>o,p</i> -dibrom- <i>o</i> -phenylenediamine.....	35,	148
— and <i>Russe, F. W.</i> On certain derivatives of tetrabrom- <i>o</i> -benzoquinone.....	35,	154
— and <i>Boswell, M. C.</i> On the action of chloride of iodine on pyrocatechin.....	35,	519
— and <i>Clarke, L.</i> On the action of bromine on dimethylaniline. II.....	36,	409
— and <i>MacLaurin, R. D.</i> On certain derivatives of tetrachlor- <i>o</i> -benzoquinone.....	37,	7
— and <i>MacLaurin, R. D.</i> On the constitution of the α - and β -addition compounds of alcohols and tetrabrom- <i>o</i> -benzoquinone.....	37,	87
— and <i>MacLaurin, R. D.</i> Some derivatives of tetrachlor- <i>o</i> -benzoquinone.....	38,	127
— and <i>Zanetti, J. E.</i> An extractor for use with small quantities of material.....	38,	461
— and <i>Flint, H. A.</i> On tribrommethoxy- <i>o</i> -benzoquinonemonomethylhemiacetal.....	39,	80
— and <i>Carleton, P. W.</i> Some derivatives of tetrachlor- <i>o</i> -benzoquinone.....	39,	493
— and <i>Peakes, R. W.</i> Mercury salts of the three nitranilines.....	39,	567
— and <i>Clarke, L.</i> A modification of Scheibler's extractor for use with large quantities of a solid... ..	42,	287
— and <i>Flint, H. A.</i> On the action of acetic anhy-		

- dride on the octobrom-*o*-quino-1-methoxy-1'-hydroxy-1-phenylene oxide..... 43, 7
- Jackson, C. L. and Flint, H. A.* Tetrabromdiketocyclopentene..... 43, 135
- and *Fiske, A. H.* A method for purifying and drying organic liquids by wiping..... 44, 438
- *Henry Augustus Torrey* (Obituary)..... 44, 472
- and *Clarke, L.* Curcumin..... 45, 48
- and *Bigelow, H. E.* 1,3,5-Triiod-2-brom-4,6-dinitrobenzene and some of its derivatives..... 46, 549
- and *Kelley, G. L.* Certain derivatives of tetrachlor-*o*-benzoquinone..... 47, 197
- and *Jones, W. N.* Iodtribromnitrobenzene..... 49, 46
- and *Kelley, G. L.* The action of nitric acid on heptachlorpyrocatechinorthoquino hemiether..... 49, 435
- and *Fiske, A. H.* The action of sodic hydroxide on tetrabrom-*o*-benzoquinone..... 50, 341
- See *Clarke, L.*
- Jackson, H. C.* Directons for laboratory work in physiological chemistry, 2nd ed. (Review)..... 32, 92
- Jacobson, C. A. and Dinsmore, S. C.* A separatory apparatus (Note)..... 44, 84
- and *Marchlewski, L.* On the duality of chlorophyll and the variable ratio of the two constituents. 47, 221
- and *Marchlewski, L.* Methods for determining neo- and allochlorophyll in the presence of one another..... 48, 111
- See *Jones, H. C.*
- Jacquemin, G. and Alliot, H.* La cidrerie moderne (Review)..... 30, 85
- Jaeger, W.* Die Normalelemente und ihre Anwendung in der elektrischen Messtechnik (Review)..... 27, 236
- Jänecke, E.* Gesättigte Salzlösungen vom Standpunkte der Phasenlehre (Review)..... 42, 374
- Jago, W. and Jago, W. C.* The technology of bread-making, American ed. (Review)..... 47, 180
- Jago, W. C.* See *Jago, W.*
- Jahn, H.* Grundriss der Elektrochemie, 2te Aufl. (Review)..... 36, 417
- Jamieson, G. S.* Caesium bismuth nitrate..... 26, 277
- On some double and triple salts of caesium nitrite with nitrites of silver, the alkali earths and lead. 38, 615
- See *Johnson, T. B., Wheeler, H. L.*
- Jeffreys, E.* On undecylamine and pentadecylamine and the preparation of the higher amines of the aliphatic series..... 22, 14

<i>Jellet, J. H. and Franck, L.</i> Chemisch-optische Untersuchungen (Review).....	45,	88
<i>Jellinek, K.</i> Das Hydrosulfit (Review).....		
..... Teil I, 48, 98; Teil II,	49,	262
—— Physikalische Chemie der homogenen und heterogenen Gasreaktionen (Review).....	50,	191
<i>Jones, C.</i> An introduction to the science and practice of qualitative chemical analysis (Review).....	21,	100
<i>Jones, D. B.</i> See <i>Johnson, T. B.</i>		
<i>Jones, H. C.</i> The freezing-point, boiling-point, and conductivity methods (Review).....	21,	95
—— The modern theory of solution (Review).....	21,	539
—— and <i>Ota, K.</i> Contribution to our knowledge of aqueous solutions of double salts II. Chlorides..	22,	5
—— and <i>Knight, N.</i> Contribution to the study of aqueous solutions of double salts. III. Chlorides and bromides.....	22,	110
—— and <i>Chambers, V. J.</i> On some abnormal freezing-point lowerings, produced by chlorides and bromides of the alkaline earths.....	23,	89
—— and <i>Smith, Arthur W.</i> The solution-tension of zinc in ethyl alcohol.....	23,	397
—— On inorganic ferments (Note).....	23,	449
—— The theory of electrolytic dissociation and some of its applications (Review).....	23,	529
—— Ammonia a weak tribasic acid (Report).....	24,	102
—— The dissociating power of different solvents. A summary (Report).....	25,	232
—— and <i>Caldwell, B. P.</i> Contribution to the study of aqueous solutions of double salts. IV. Iodides, cyanides, nitrates and sulphates.....	25,	349
—— François Marie Raoult (Obituary).....	25,	510
—— and <i>Douglas, J. M.</i> The dissociation of certain acids, bases and salts at different temperatures....	26,	428
—— The molecular weights of certain salts in acetone.	27,	16
—— <i>Barnes, J. and Hyde, E. P.</i> The lowering of the freezing point of aqueous hydrogen dioxide.....	27,	22
—— The dissociating power of liquid hydrocyanic acid (Report).....	27,	154
—— Outlines of electrochemistry (Review).....	27,	239
—— The elements of physical chemistry (Review)....	27,	423
—— and <i>Getman, F. H.</i> The lowering of the freezing point of water produced by concentrated solutions of certain electrolytes and the conductivity of such solutions.....	27,	433

<i>Jones, H. C.</i> A redetermination of the atomic weight of lanthanum	28,	23
— and <i>Carroll, C. G.</i> The lowering of the freezing point of aqueous hydrogen dioxide produced by certain salts and acids	28,	284
— and <i>Lindsay, C. F.</i> A study of the conductivity of certain salts in water, methyl, ethyl, and propyl alcohols, and in mixtures of these solvents	28,	329
— Principles of inorganic chemistry (Review)	29,	616
— and <i>Murray, G.</i> The association of a liquid diminished by the presence of another associated liquid	30,	193
— and <i>Murray, G.</i> The lowering of the freezing point of aqueous hydrogen dioxide by sulphuric and acetic acids	30,	205
— Elements of inorganic chemistry (Review)	31,	193
— and <i>Getman, F. H.</i> On the nature of concentrated solutions of electrolytes—hydrates in solution	31,	303
— The significance of the maximum in the conductivity curves of Kraus at high temperatures	31,	584
— and <i>Getman, F. H.</i> The existence of hydrates in solutions of certain non-electrolytes and the non-existence of hydrates in solutions of organic acids	32,	308
— and <i>Getman, F. H.</i> The existence of alcoholates in solutions of certain electrolytes in alcohol	32,	338
— and <i>Bassett, H. P.</i> Determination of the velocities of the ions of silver nitrate in mixtures of the alcohols and water and on the conductivity of such mixtures	32,	409
— and <i>Carroll, C. G.</i> A study of the conductivities of certain electrolytes in water, methyl and ethyl alcohols and mixtures of these solvents—relation between conductivity and viscosity	32,	521
— On the change of concentration of solutions and on the crystallization of dissolved substances under the influence of centrifugal force (Note)	33,	430
— and <i>Bassett, H. P.</i> The approximate composition of the hydrates formed by certain electrolytes in aqueous solutions at different concentrations. X	33,	534
— and <i>Bassett, H. P.</i> The approximate composition of the hydrates formed by a number of electrolytes in aqueous solutions, together with a brief general discussion of the results thus far obtained. XIII	34,	290
— and <i>West, A. P.</i> A study of the temperature coefficients of conductivity in aqueous solutions and on the effect of temperature on dissociation	34,	357

<i>Jones, H. C.</i> The atomic weight of radium and the periodic system.....	34,	467
— and <i>Bingham, E. C.</i> The conductivity and viscosity of solutions of certain salts in mixtures of acetone with methyl alcohol, with ethyl alcohol and water.....	34,	481
— Radiothorium—a new radioactive element (Report).....	34,	585
— and <i>McMaster, L.</i> On the formation of alcoholates by certain salts in solution in methyl and ethyl alcohols. XV.....	35,	316
— The bearing of hydrates on the temperature coefficients of conductivity of aqueous solutions. XVI.	35,	445
— An investigation to determine whether there is change in weight in chemical reaction (Report)...	36,	100
— and <i>McMaster, L.</i> The conductivity and viscosity of solutions of certain salts in water, methyl alcohol, ethyl alcohol, acetone and binary mixtures of these solvents. V.....	36,	325
— and <i>Rouiller, C. A.</i> The relative migration velocities of the ions of silver nitrate in water, methyl alcohol, ethyl alcohol and acetone and in binary mixtures of these solvents, together with the conductivity of such solutions.....	36,	427
— The electrical nature of matter and radioactivity (Review).....	36,	614
— and <i>Uhler, H. S.</i> The absorption spectra of certain salts in aqueous solution as affected by the presence of certain other salts with large hydrating power. XVII.....	37,	126, 207
— and <i>Uhler, H. S.</i> The absorption spectra of certain salts in non-aqueous solvents as affected by the addition of water. XVIII.....	37,	244
— and <i>Veazey, W. R.</i> A possible explanation of the increase in viscosity which results when the alcohols are mixed with water and of the negative viscosity coefficients of certain salts when dissolved in water. VII.....	37,	405
— and <i>Pearce, J. N.</i> Dissociation as measured by freezing-point lowering and by conductivity—bearing of the hydrate theory. The approximate composition of the hydrates formed by a number of electrolytes. XIX.....	38,	683
— and <i>Stine, C. M.</i> The effect of one salt on the hydrating power of another salt present in the same solution.....	39,	313

- Jones, H. C.* The elements of physical chemistry, 3rd ed. (Review) 39, 435
- The degradation of the elements (Report)..... 39, 556
- and *Jacobson, C. A.* The conductivity and ionization of electrolytes in aqueous solutions as conditioned by temperature, dilution, and hydrolysis. . 40, 355
- The present status of the solvate theory. XXIII. 41, 19
- and *Anderson, J. A.* The absorption spectra of solutions of a number of salts in water, in certain nonaqueous solvents and in mixtures of these solvents with water. XXIV..... 41, 163, 276
- and *Mahin, E. G.* The conductivity of solutions of lithium nitrate in ternary mixtures of acetone, methyl alcohol, ethyl alcohol and water, together with the viscosity and fluidity of these mixtures. X..... 41, 433
- and *Strong, W. W.* The absorption spectra of various salts in solution and the effect of temperature on such spectra. XXVI..... 43, 37, 97
- and *Strong, W. W.* The absorption spectra of solutions: a possible method for detecting the presence of intermediate compounds in chemical reactions..... 43, 224
- *Hans Landolt* (Obituary)..... 43, 425
- *Richard Abegg* (Obituary)..... 43, 563
- *Stanislao Cannizzaro* (Obituary)..... 44, 384
- Introduction to physical chemistry (Review)... 44, 388
- and *Strong, W. W.* The absorption spectra of certain salts of cobalt, erbium, neodymium and uranium, as affected by temperature and by chemical reagents. XXXII..... 45, 1, 113
- and *Strong, W. W.* Selective oxidation. XXXIII 45, 36
- *Jacobus Henricus van't Hoff* (Obituary)..... 45, 403
- The electrical nature of matter and radioactivity, 2nd ed. (Review)..... 46, 312
- *Biron, E. V., Zhukoff, I. I. and Sopochnikoff, A. V.* Osnovi physicheskoi Chemie (Review)..... 46, 414
- and *Strong, W. W.* The absorption spectra of comparatively rare salts. The spectrophotography of certain chemical reactions, and the effect of high temperature on the absorption spectra of nonaqueous solutions. XXXV..... 47, 27, 126
- and *Guy, J. S.* The absorption spectra of solutions as affected by temperature and by dilution. A quantitative study of absorption spectra by means of the radiomicrometer..... 49, 1

<i>Jones, H. C.</i> The freezing-point, boiling-point and conductivity methods, 2nd ed. (Review)	49,	340
— and <i>Giua, M.</i> Trattato di chimico-fisica (Review)	49,	341
— A new era in chemistry (Review)	50,	477
— See <i>Biltz, H., Clover, A. M., Guy, J. S., Hosford, H. H., Howard, S. F., Kreider, H. R., Schmidt, M. R., Shaeffer, E. J., Smith, L. D., Springer, Jr., A., West, A. P., White, G. F., Wightman, E. P., Winston, L. G.</i>		
<i>Jones, L. W.</i> Two isomeric α,β -dialkyl hydroxylamines. I. α -Methyl- β -ethylhydroxylamine. II. α -Ethyl- β -methylhydroxylamine	38,	253
— and <i>Oesper, R.</i> The preparation of hydroxamic acids from hydroxylamine salts of organic acids	42,	515
— The Beckmann rearrangement of hydroxamic acids	48,	1
— Applications of the electronic conception of valence. I. Reactions among certain classes of compounds containing nitrogen. II. The Beckmann rearrangement	50,	414
<i>Jones, W. A.</i> A contribution to our knowledge of dicarbonyl cuprous chloride	22,	287
— The action of ozone, hydrogen peroxide, etc., on carbon monoxide	30,	40
<i>Jones, W. N.</i> See <i>Jackson, C. L.</i>		
<i>Jones, W. R.</i> A text-book of chemistry (Review)	35,	475
<i>Johns, C. O.</i> Researches on pyrimidines: XXXVII. Synthesis of 4-methylcytosine	40,	348
— Researches on pyrimidines: XLI. On the formation of purine derivatives from 4-methylcytosine	41,	58
— Researches on purines: II. On an isomer of xanthine; 2,8-dioxypurine	45,	79
— See <i>Johnson, T. B., Wheeler, H. L.</i>		
<i>Johnson, A. E.</i> The analyst's laboratory companion, 4th ed. (Review)	48,	463
— See <i>Sutton, F.</i>		
<i>Johnson, C. M.</i> Rapid methods for the chemical analysis of special steels, steel-making alloys and graphite (Review)	43,	95
<i>Johnson, J. M.</i> See <i>Acree, S. F.</i>		
<i>Johnson, O. C.</i> See <i>Prescott, A. B.</i>		
<i>Johnson, T. B.</i> Experiments with phenylacetimidoesters	23,	142
— On some pseudodithiobiurets	30,	167
— and <i>Clapp, S. H.</i> Researches on pyrimidines: VI. Synthesis of 2-amino-5-methyl-6-oxypyrimidine	32,	130

- Johnson, T. B. and Menge, G. A.* On the action of phenylhydrazine on benzoylpseudoureas: 1,5-diphenyl-3-aminopyrro- α,β' -diazole derivatives 32, 358
- and *Johns, C. O.* Researches on pyrimidines: X. The action of aqueous and alcoholic ammonia and aniline on some halogen and mercapto pyrimidines..... 34, 175
- Researches on pyrimidines: XI. 2-Ethylmercapto-5-amino-6-oxypyrimidine..... 34, 191
- and *Johns, C. O.* Researches on pyrimidines: XII. On 2,5-diamino-6-oxypyrimidine..... 34, 554
- and *McCollum, E. V.* Some derivatives of benzenesulphonylaminoacetonitrile..... 35, 54
- and *Jamieson, G. S.* On the molecular rearrangement of unsymmetrical diacylpseudothioureas to isomeric symmetrical derivatives..... 35, 297
- and *McCollum, E. V.* Researches on pyrimidines: XV. The action of potassium thiocyanate upon imide chlorides..... 36, 136
- and *McCollum, E. V.* Researches on pyrimidines: XVI. On the formation of purines from urea pyrimidines..... 36, 149
- *Johns, C. O. and Heyl, F. W.* Researches on pyrimidines: XVII. On 5-nitrocytosine and its reduction to 2-oxy-5,6-diaminopyrimidine..... 36, 160
- and *Johns, C. O.* Researches on furfurans: I. On 2,5-dicarbethoxy-3,4-diketotetrahydrofurfuran. 36, 290
- and *Meade, H. A.* *o*-, *m*- and *p*-Iodhippuric acids 36, 294
- and *Heyl, F. W.* Researches on pyrimidines: XX. Some condensation products of a substituted pseudothiourea: synthesis of 1-methyluracil..... 37, 628
- and *Heyl, F. W.* Researches on pyrimidines: XXI. The action of methyl iodide on 6-oxy-2-anilinopyrimidine and the synthesis of anilinopyrimidine..... 38, 237
- and *Levy, L. H.* Researches on thiocyanates and isothiocyanates: VII. Diphenylcarbamylothiocyanate..... 38, 456
- and *Speh, C. F.* Researches on pyrimidines: XXVII. Synthesis of thymine-5'-carboxylic acid.. 38, 602
- and *Heyl, F. W.* Researches on pyrimidines: XXVIII. Synthesis of 4-methyluracil-5-acetic acid. 38, 659
- Researches on pyrimidines: XXX. The action of nitric acid on 2,6-dioxypyrimidines. Oxynitrohydrothymine..... 40, 19

<i>Johnson, T. B. and Storey, W. F.</i> Researches on pyrimidines: XXXV. The action of potassium thiocyanate upon some imidechlorides	40,	131
— and <i>Derby, Jr., J. H.</i> Researches on pyrimidines: XXXVIII. Synthesis of some benzyl derivatives of uracil and thymine	40,	444
— and <i>Jones, D. B.</i> Researches on pyrimidines: XXXIX. Syntheses of new derivatives of 5-hydroxyuracil (isobarbituric acid)	40,	538
— and <i>Guest, H. H.</i> Researches on thiocyanates and isothiocyanates: VIII. A new class of isothiocyanates. Isothiocyan ethers	41,	337
— and <i>Guest, H. H.</i> Researches on pyrimidines: XLV. Sulphur derivatives of 5-hydroxyuracil: preparation of 5-benzylmercaptouracil and 5-benzylmercaptocytosine	42,	271
— and <i>Guest, H. H.</i> Researches on amines: I. Synthesis of methylphenylethylamine	42,	340
— and <i>Mackenzie, K. G.</i> Researches on pyrimidines: XLVI. Dimethyl derivatives of 2-aminopyrimidine. Preparation of 2-methylamino-5-methylpyrimidine	42,	353
— Researches on pyrimidines: XLVIII. Synthesis of 5-cyanuracil	42,	505
— and <i>Guest, H. H.</i> Researches on amines: II. Syntheses of 4-nitrophenylethylamine and 2,4-dinitrophenylethylamine	43,	310
— and <i>Langley, R. W.</i> Studies in the oxazole series: syntheses of ω -ketotetrahydrooxazoles	44,	352
— and <i>Guest, H. H.</i> Studies in the oxazole series: II. The addition of cyanic acid to epichlorhydrin	44,	453
— and <i>Jones, D. B.</i> The transformation of allylphthalimide into propenylphthalimide	45,	343
— and <i>Hill, A. J.</i> Researches on pyrimidines: I. On the condensation of thiourea with esters of allylmalonic acid and some alkyl-substituted allylmalonic acids	45,	356
— and <i>Shepard, N. A.</i> Researches on pyrimidines: LIII. The condensation of ethyl formate and diethyl oxalate with some pyrimidinethioglycolates	46,	345
— and <i>Hill, A. J.</i> Researches on pyrimidines: LIV. The condensation of urea and guanidine with esters of allylmalonic and some alkyl-substituted allylmalonic acids	46,	537
— and <i>Hoffman, C.</i> On hydantoins: VIII. The action of bromine on tyrosinehydantoin	47,	20

- Johnson, T. B. and Burnham, G.* Thioamides: IV. The action of hydrogen sulphide on nitrogen-substituted aminoacetonitriles 47, 232
- and *Guest, H. H.* Hydantoins: X. The action of potassium thiocyanate on pyrrolidinecarboxylic acid. 2-Thiohydantoin-4-propionic acid..... 47, 242
- and *Nicolet, B. H.* Hydantoins: XI. A new method of synthesizing N-alkyl derivatives of α -amino acids. Methyltyrosine..... 47, 459
- and *Guest, H. H.* Hydantoins: XIV. The action of potassium thiocyanate on asparagine..... 48, 103
- and *Ambler, J. A.* Desmotropism in the pseudo-thiohydantoins..... 48, 197
- and *Shepard, N. A.* Researches on pyrimidines: LVI. The action of hydroxylamine on 4-methyl-6-oxypyrimidine-2-oxalothioglycolic acid. β -Mercapto- α -oximidopropionic acid..... 48, 279
- and *Hill, A. J.* Researches on pyrimidines: LVII. The action of potassium thiocyanate on primary halides..... 48, 296
- and *Moran, R. C.* Researches on pyrimidines: LVIII. The oximes of some thioglycolide compounds and their behavior on reduction.... 48, 307
- Hydantoins: The action of thiocyanates on α -amino acids..... 49, 68
- and *Kohmann, E. F.* Researches on pyrimidines: LIX. Barbituryl- and 2-thiobarbituryl-5-acetic acids..... 49, 184
- and *Nicolet, B. H.* Hydantoins: XXI. The action of ammonium and potassium thiocyanates on α -amino acids..... 49, 197
- and *Zee, Z. Z.* Researches on pyrimidines: LX. Alkylation with benzyl chloride..... 49, 287
- See *Wheeler, H. L.*
- Johnstin, R. M.* See *Kohler, E. P.*
- Johnston, M. E.* See *Kastle, J. H.*
- Jordis, E.* See *Graham, T.*
- Jüptner, H. v. and Nagel, O.* Heat energy and fuels (Review)..... 43, 387
- Das chemische Gleichgewicht auf Grund mechanischer Vorstellungen (Review)..... 46, 114
- Julian, F.* A text-book of quantitative chemical analysis (Review)..... 30, 538
- KAHLENBERG, L.** Outlines of chemistry (Review)... 43, 386
- Kamensky, G.* See *Mendeléeff, D.*

<i>Karslake, W. J.</i> The preparation of potassium ferricyanide.....	37,	637
<i>Kastle, J. H. and Beatty, W. A.</i> On the dissociation of phosphorus pentabromide in solution in organic solvents.....	21,	392
— On the color of compounds of bromine and of iodine.....	21,	398
— and <i>Clark, M. E.</i> On the effects of various solvents on the allotropic change of mercuric iodide..	22,	473
— On the effect of very low temperature on the color of compounds of bromine and iodine.....	23,	500
— and <i>Beatty, L. O.</i> On the supposed allotropism of phosphorus pentabromide.....	23,	505
— and <i>Beatty, W. A.</i> On the effect of oxidizing agents on the reduction of mercuric chloride by oxalic acid.....	24,	182
— and <i>Loevenhart, A. S.</i> Concerning lipase, the fat-splitting enzyme, and the reversibility of its action.	24,	491
— and <i>Clark, M. E.</i> On the decomposition of hydrogen peroxide by various substances at high temperatures.....	26,	518
— and <i>Shedd, O. M.</i> Phenolphthalin as a reagent for the oxidizing ferments.....	26,	526
— and <i>Loevenhart, A. S.</i> On the nature of certain of the oxidizing ferments.....	26,	539
— A study of tribromophenolbromide	27,	31
— and <i>Reed, J. V.</i> On the nature of mercuric iodide in solution.....	27,	209
— The inactivity of lipase towards the salts of certain acid esters considered in the light of the theory of electrolytic dissociation.....	27,	481
— and <i>Loevenhart, A. S.</i> The catalytic decomposition of hydrogen peroxide. II. As to the mode of action of hydrogen peroxide as an oxidizing agent and its catalytic decomposition by various substances.....	29,	563
— and <i>Clark, M. E.</i> Cyanogen iodide as an indicator for acids.....	30,	87
— and <i>Clark, M. E.</i> On the occurrence of invertase in plants.....	30,	422
— and <i>Elvove, E.</i> Oxidation and reduction in the animal organism and the toxic action of powerful oxidizing and reducing substances.....	31,	105
— <i>Johnston, M. E. and Elvove, E.</i> The hydrolysis of ethyl butyrate by lipase.....	31,	521

- Kastle, J. H.* and *Elvove, E.* Ammonium sulphocyanate and thiourea as sources of nitrogen to fungi and micro-organisms 31, 550
- and *Elvove, E.* On the reduction of nitrates by certain plant extracts and metals and the accelerating effect of certain substances on the progress of the reduction..... 31, 606
- and *McCaw, E. C.* On the fate of potassium myronate in the animal organism and its hydrolysis by the ferments of the liver..... 32, 372
- and *Smith, C. R.* On the oxidation of sulphocyanic acid and its salts by hydrogen peroxide.... 32, 376
- and *Kelley, W. P.* On the rate of crystallization of plastic sulphur 32, 483
- A method for the determination of the affinities of acids colorimetrically by means of certain vegetable coloring matters..... 33, 46
- and *McHargue, J. S.* The combustion of sulphur in air and oxygen..... 38, 465
- Peroxidase accelerators and their possible significance for biological oxidations.. 40, 251
- On the decomposition of the leucosulphonic acids of rosaniline hydrochloride and crystal-violet in aqueous solution..... 42, 293
- Note on the experimental illustration of the law of multiple proportions..... 43, 553
- The oxidases (Review)..... 44, 478
- On the preparation of certain sulphonic acids in the free state..... 44, 483
- Several acids suitable for use as standards in acidimetry..... 44, 487
- A study of *o*-amino-*p*-sulphobenzoic acid with special reference to its fluorescence..... 45, 58
- On the conversion of benzenesulphondibromamide into dibrombenzenesulphonamide by means of concentrated sulphuric acid..... 45, 219
- On the experimental illustration of the law of definite proportions through combination of the halogens with finely divided silver..... 45, 396
- and *Haden, R. L.* On the color changes occurring in the blue flowers of the wild chicory, *Cichorium intybus*..... 46, 315
- and *Haden, R. L.* A study of *o*-amino-*p*-sulphobenzoic acid and its derivatives, with special reference to their fluorescence. II..... 46, 508
- See *Dinwiddie, J. G.*, *Loevenhart, A. S.*

<i>Kaufmann, W.</i>	See <i>Curie, Mme.</i>	
<i>Keane, C. A.</i>	See <i>Lunge, G.</i>	
<i>Keiser, E. H.</i>	On a liquid acetylene diiodide.....	21, 261
—	and <i>Forder, S. W.</i> A new method for the determination of free lime and on so-called "dead burnt" lime.....	31, 153
—	and <i>McMaster, L.</i> On the detection of ozone, nitrogen peroxide and hydrogen peroxide in gas mixtures	39, 96
—	and <i>McMaster, L.</i> The synthesis of fumaric and maleic acids from the acetylene diiodides.....	46, 518
—	and <i>Kessler, J. J.</i> The nitrile of fumaric acid...	46, 523
—	and <i>McMaster, L.</i> On the nitrile of fumaric acid and the preparation of methyl maleate.....	49, 81
—	and <i>McMaster, L.</i> A general method for the preparation of the ammonium salts of organic acids.	49, 84
<i>Keller, E.</i>	See <i>Reimer, M.</i>	
<i>Keller, F. H.</i>	See <i>Frankforter, G. B.</i>	
<i>Keller, H. F.</i>	See <i>Smith, E. F.</i>	
<i>Kelley, G. L.</i>	See <i>Jackson, C. L.</i>	
<i>Kelley, W. P.</i>	See <i>Kostle, J. H.</i>	
<i>Kempf, R.</i>	Tabelle der wichtigsten organischen Verbindungen, geordnet nach Schmelzpunkten (Review)...	50, 480
<i>Kennon, W. L.</i>	See <i>Morse, H. N.</i>	
<i>Kenrick, F. B.</i> and <i>DeLury, R. E.</i>	An elementary laboratory course in chemistry (Review).....	35, 371
<i>Kerp, W.</i>	See <i>Bodländer, G.</i>	
<i>Kershaw, J. B. C.</i>	Electro-metallurgy (Review).....	43, 94
<i>Kessler, J. J.</i>	See <i>Keiser, E. H.</i>	
<i>Kibler, A. L.</i>	See <i>Brunswick, H.</i>	
<i>Kiby, W.</i>	Handbuch der Presshefenfabrikation (Review).	49, 75
<i>Kinch, E.</i>	Church's laboratory guide, 9th ed. (Review).	49, 337
<i>King, S. H.</i>	See <i>Biltz, H.</i>	
<i>King, W. E.</i>	See <i>Garner, J. B.</i>	
<i>Kingman, W. A.</i>	See <i>Norris, J. F.</i>	
<i>Klein, A. A.</i>	See <i>Cooper, H. C.</i>	
<i>Knight, N.</i>	See <i>Jones, H. C.</i>	
<i>Knight, S. S.</i>	A rapid method for the determination of total sulphur in iron by evolution.....	32, 84
<i>Knox, J.</i>	Physico-chemical calculations (Review).....	48, 102
—	Elementary chemical theory and calculations (Review).....	49, 337
<i>Kober, P. A.</i>	Note on the preparation and the use of asbestos for Gooch crucibles.....	41, 430
—	and <i>Sugiura, K.</i> The copper complexes of amino acids, peptides and peptones. II. Their configuration and relation to the biuret reaction.....	48, 383

- Koch, W.* See *Jackson, C. L.*
- Köhler, H.* Die Fabrikation des Russes und der Schwarze,
3te Aufl. (Review)..... 49, 342
— See *Lunge, G.*
- König, E.* Das Arbeiten mit farbenempfindlichen Platten
(Review)..... 42, 558
— See *Vogel, H. W.*
- Koenig, G. A.* Apparatus for generating gases at constant
flow and of high efficiency..... 24, 373
— Addition to the article on page 373 24, 468
- Köthner, P.* See *Erdmann, H.*
- Kohler, E. P.* Aliphatic sulphonic acids. III..... 21, 349
— The reaction between aliphatic sulphocyanates
and metallic derivatives of acetoacetic ester and
analogous substances..... 22, 67
— and *MacDonald, M. B.* Disulphones and keto-
sulphones..... 22, 219
— and *MacDonald, M. B.* The reaction between
sulphone chlorides and metallic derivatives of ke-
tonic esters..... 22, 227
— The molecular weight of aluminium compounds. 24, 385
— The structure of the substances obtained by the
addition of organic oxygen compounds and alumin-
ium halides..... 27, 241
— The action of light on cinnamylidenemalonic acid. 28, 233
— Diphenylstyrylcarbinol..... 29, 352
— and *Reimer, M.* Some addition-reactions of sul-
phinic acids..... 31, 163
— The addition of acid sulphites to cinnamylidene-
malonic acid..... 31, 243
— The reaction between unsaturated compounds
and organic magnesium compounds. I. Reactions
of unsaturated aldehydes and unsaturated ketones. 31, 642
— and *Heritage, G.* The reaction between organic
magnesium compounds and unsaturated compounds.
II. Reactions with derivatives of cinnamic acid... 33, 21
— and *Johnstin, R. M.* The reaction between or-
ganic magnesium compounds and unsaturated com-
pounds. III. Reactions with compounds contain-
ing bromine..... 33, 35
— and *Heritage, G.* The reaction between unsatur-
ated compounds and organic magnesium compounds.
IV. Reactions with esters of α -phenylcinnamic acid. 33, 153
— and *Reimer, M.* The reaction between unsatur-
ated compounds and organic magnesium com-
pounds. V. Reactions with α -cyanocinnamic acid. 33, 333

<i>Köhler, E. P.</i> The reaction between unsaturated compounds and organic magnesium compounds. VI. Reactions with ethyl benzalmalonate.....	34,	132
— and <i>Heritage, G.</i> The reaction between organic magnesium compounds and unsaturated compounds. VII. Complex products from cinnamic esters.....	34,	568
— The reaction between unsaturated compounds and organic magnesium compounds. VIII. Reactions with α,β -unsaturated nitriles.....	35,	386
— The reaction between unsaturated compounds and organic magnesium compounds. IX. Reactions with stereoisomers.....	36,	177
— The reaction between unsaturated compounds and organic magnesium compounds. X. Reactions with α -methylcinnamic acid.....	36,	529
— The reaction between unsaturated compounds and organic magnesium compounds:		
XI. Cyclic ketones.....	37,	369
XII. Aldehydes and ketones.....	38,	511
— Triphenylindene and some of its derivatives....	40,	217
— The action of alkaline hydroxides on α -bromoketones.....	41,	417
— Vinylphenyl ketone and some of its homologues.	42,	375
— and <i>Burnley, M. C.</i> Reaction between unsaturated compounds and organic magnesium compounds.		
XIII. Derivatives of cyclohexane.....	43,	412
— and <i>Heritage, G. L.</i> The reaction between unsaturated compounds and organic zinc compounds.	43,	475
— <i>Heritage, G. L.</i> and <i>Burnley, M. C.</i> The Friedel and Crafts reaction with chlorides of unsaturated acids.	44,	60
— <i>Heritage, G. L.</i> and <i>Macleod, A. L.</i> The reaction between unsaturated compounds and organic zinc compounds. II.....	46,	217
— Unsaturated δ -ketonic acids.....	46,	474
<i>Kohlrausch, F.</i> and <i>Holborn, L.</i> Das Leitvermögen der Elektrolyte (Review).....	21,	543
<i>Kohmann, E. F.</i> See <i>Johnson, T. B.</i>		
<i>Kopp, H.</i> See <i>Liebig, J.</i>		
<i>Koppel, J.</i> See <i>Richards, T. W.</i>		
<i>Kraemer, H.</i> A text-book of botany and pharmacognosy, (Review) . . 2nd ed., 38, 655; 3rd ed., 42, 98; 4th ed.,	45,	614
<i>Kraus, C. A.</i> See <i>Franklin, E. C.</i>		
<i>Kraus, E. H.</i> Essentials of crystallography (Review)...	37,	422
— Descriptive mineralogy (Review).....	47,	271
— See <i>Cooper, H. C.</i>		

- Kreider, H. R.* and *Jones, H. C.* The dissociation of electrolytes in nonaqueous solvents as determined by the conductivity- and boiling-point methods 45, 282
- and *Jones, H. C.* The conductivity of certain salts in methyl and ethyl alcohols at high dilutions. 46, 574
- Kremers, E.* See *Gildemeister, E.*
- Kreutz, A.* Die menschliche Nahrung (Review) 50, 57
- Kühling, O.* Karl Heumann's Einleitung zum Experimentieren bei Vorlesungen über anorganischen Chemie, 3te Aufl. (Review) 31, 684
- Kuhara, M.* and *Chikasige, M.* A method for the determination of the melting point. 23, 230
- and *Chikasige, M.* Formation of indigo from diphenyldiketopiperazine. 24, 167
- and *Fukui, M.* Action of aromatic amines upon phthalyl chloride at different temperatures. 26, 454
- and *Chikasige, M.* Methyl derivatives of indigo. 27, I
- LAAR, J. J. VAN.* Sechs Vorträge über das thermodynamische Potential (Review) 37, 117
- LaBlancord, M.* Die Darstellung des Chroms und seiner Verbindungen mit Hilfe des elektrischen Stromes (Review) 30, 165
- Lacey, H. B.* and *Pannett, C. A.* Practical exercises in chemical physiology and histology (Review) 34, 171
- Lach, B.* Die Zeresinfabrikation (Review) 47, 531
- Lachman, A.* The relation of trivalent to pentavalent nitrogen, I. 21, 433
- The spirit of organic chemistry (Review) 22, 247
- The preparation of zinc ethyl. 24, 31
- The use of acetylene gas as fuel in chemical laboratories. 24, 39
- Ladd, E. F.* A manual of quantitative chemical analysis (Review) 21, 98
- See *Holley, C. D.*
- Ladenburg, A.* and *Dobbin, L.* Lectures on the history of the development of chemistry (Review) 26, 384
- Vorträge über die Entwicklungsgeschichte der Chemie (Review) 37, 656
- and *Corvisy, A.* Histoire du développement de la chimie (Review) 42, 559
- Lamb, A. B.* The conversion of orthoperiodic acid into normal periodic acid. 27, 134
- The action of acetyl chloride on selenic acid. 30, 209
- See *Baxter, G. P., Haber, F., Michael, A.*

<i>Landauer, J. and Tingle, J. B.</i> Spectrum analysis, 2nd ed. (Review).....	40,	412
<i>Landolt, H. and McCrae, J.</i> Optical activity and chemical composition (Review).....	23,	271
—— <i>Ueber die Erhaltung der Masse bei chemischen Umsetzungen</i> (Review).....	44,	207
<i>Langley, R. W.</i> See <i>Johnson, T. B.</i>		
<i>Langmaid, J. F.</i> See <i>Jackson, C. L.</i>		
<i>Langworthy, C. F. and Austen, P. T.</i> The occurrence of aluminium in vegetable products, animal products, and natural waters (Review).....	32,	403
—— See <i>Atwater, W. O.</i>		
<i>Lassar-Cohn.</i> Einführung in die Chemie in leichtfasslicher Form (Review).....	23,	88
—— and <i>Muir, M. M. P.</i> An introduction to modern scientific chemistry (Review).....	26,	92
—— and <i>Tingle, J. B.</i> Applications of some general reactions to investigations in organic chemistry (Review).....	33,	521
<i>Lawrie, J. W.</i> On the constitution of the acetylidene compounds.....	36,	487
<i>Leach, A. E.</i> Food inspection and analysis (Review)....	32, 614; 2nd ed.,	201
<i>Leask, H.</i> See <i>Hurst, G. L.</i>		
<i>Leathes, J. B.</i> The fats (Review).....	46,	415
<i>Leavenworth, C. S.</i> Caesium-manganous thiocyanate, $\text{Cs}_4\text{Mn}(\text{SCN})_6$	28,	261
—— and <i>Wells, H. L.</i> Caesium-silver-manganous thiocyanate, $\text{Cs}_2\text{MnAg}_2(\text{SCN})_6 \cdot 2\text{H}_2\text{O}$	28,	276
<i>Leavenworth, W. S.</i> Inorganic qualitative chemical analysis (Review).....	38,	122
<i>LeBlanc, M., Whitney, W. R. and Brown, J. W.</i> A text-book of electrochemistry (Review).....	38,	656
—— <i>Die elektromotorischen Kräfte der Polarisation</i> (Review).....	44,	482
<i>LeChatelier, H., Boudouard, O. and Burgess, G. K.</i> High-temperature measurements (Review).....	27, 235; 2nd ed.,	607
<i>LeClerc, A. J.</i> See <i>Robine, R.</i>		
<i>Lee, E.</i> A text-book of experimental chemistry (Review).	41,	558
<i>Leffmann, H. and Beam, W.</i> Select methods in food analysis (Review).....	26, 470; 2nd ed.,	593
—— and <i>Davis, W. A.</i> Allen's commercial organic analysis 4th ed. (Review) .. Vol. I,	44, 479; Vol. II,	324
—— See <i>Allen, A. H.</i>		

- Lehfeldt, R. A.* A text-book of physical chemistry (Review)..... 23, 270
 — Electro-chemistry, Part I (Review)..... 33, 436
 — See *Nernst, W.*
- Leiser, R.* Elektrische Doppelbrechung der Kohlenstoffverbindungen (Review)..... 46, 311
- Lengfeld, F.* The action of ammonia and amines on chlorides of silicon..... 21, 531
 — Inorganic chemical preparations (Review).... 22, 495
 — On gold halides..... 26, 324
- Lenglin, M.* See *Robine, R.*
- Lenher, V.* See *Moissan, H.*
- Lescher.* See *Evans' Sons.*
- Levin, M.* See *Rutherford, E.*
- Levy, L. H.* See *Foote, H. W., Johnson, T. B.*
- Lewes, V. B.* Acetylene (Review)..... 25, 85
- Lewis, W. L.* On the action of Fehling's solution on malt sugar..... 42, 301
- Lewkowitsch, J.* The laboratory companion to fats and oils industries (Review)..... 27, 240
 — Industry and analysis of the fats (Report)..... 43, 428
- Liddle, L. M.* See *Wheeler, H. L.*
- Liebig, J. and Kopp, H.* Jahresbericht über die Fortschritte der Chemie, 1892, 4tes Heft (Review).... 21, 544
- Liebig, R. G. M.* Zink und Cadmium (Review)..... 50, 187
- Liebreich, O.* Third treatise on the effects of borax and boric acid on the human system (Review)..... 36, 324
- Liesegang, R. E.* Ueber die Schichtungen bei Diffusion (Review)..... 40, 414
- Lincoln, A. T. and Walton, Jr., J. H.* Exercises in elementary quantitative chemical analysis (Review). 40, 128
 — See *Chesneau, G.*
- Lind, S. C.* The ozonization of oxygen by α -rays..... 47, 397
 — Correction..... 49, 405
- Lindau, G.* See *Haselhoff, E.*
- Lindsay, C. F.* The conductivities of some double salts as compared with the conductivities of mixtures of their constituents..... 25, 62
 — The molecular weight of sulphur (Report)..... 27, 220
 — See *Jones, H. C.*
- Lindsay, W. B.* See *Eliot, C. W.*
- Linn, A. F.* Separation of lead from manganese by electrolysis..... 29, 82
- Lippmann, E. O. von.* Die Chemie der Zuckerarten, 3te Aufl. (Review).... 32, 515
- Livache, A. and McIntosh, J. G.* The manufacture of var-

nishes, oil crushing, refining and boiling, and kindred industries.....	24,	384
<i>Liversidge, A.</i> Tables for qualitative chemical analysis, 2nd ed. (Review).....	33,	436
<i>Lloyd, S. J. and Cunningham, J.</i> The radium content of some Alabama coals.....	50,	47
<i>Locke, J. and Edwards, G. H.</i> On an isomer of potassium ferricyanide.....	21,	193
— and <i>Edwards, G. H.</i> On the formation of potassium β -ferricyanide through the action of acids upon the normal ferricyanide.....	21,	413
— On the periodic system and the properties of inorganic compounds:		
II. Gradations in the properties of alums.....	26,	166
III. The solubility of alums as a function of two variables.....	26,	332
— Electro-affinity as a basis for the systematization of inorganic compounds.....	27,	105
— On some double sulphates of thallic thallium and caesium.....	27,	280
— The periodic system and the properties of inorganic compounds. IV. The solubility of double sulphates of the formula $M'_2M''(SO_4)_2 \cdot 6H_2O$	27,	455
— The electro-affinity theory of Abegg and Bodländer.....	28,	403
— and <i>Forssell, J.</i> The action of ammonia upon copper sulphate solutions.....	31,	268
<i>Lodge, O.</i> Electrons (Review).....	39,	309
<i>Lodge, R. W.</i> Notes on assaying and metallurgical laboratory experiments (Review).....	33,	306
<i>Loeb, J.</i> The dynamics of living matter (Review).....	36,	416
<i>Löb, W. and Lorenz, H. W. F.</i> Electrolysis and electrosynthesis of organic compounds (Review).....	22,	246
— Die Elektrochemie der organischen Verbindungen, 3te Aufl. (Review).....	35,	374
<i>Loevenhart, A. S.</i> Preparation and properties of tribromphenolbromide. Conduct of tribromphenolbromide towards heat and light. Action of tribromphenolbromide on water, potassium iodide and zinc ethyl. Behavior of tribromphenolbromide towards bromine and iodine.....	27,	32
— and <i>Kastle, J. H.</i> On the catalytic decomposition of hydrogen peroxide and the mechanism of induced oxidations. Together with a note on the nature and function of catalase.....	29,	397

- Loevenhart, A. S.* The mechanism of carbon assimilation in green plants (Report) 37, 196
 — See *Kastle, J. H.*
- London Chemical Society.* Annual reports of the progress of chemistry (Review).....
 1904, 35, 193; 1905, 36, 418; 1906, 39, 661
 — Les progrès de la chimie en 1912 (Review) 50, 488
- Long, J. C.* Solubility of lead sulphate in ammonium acetate..... 22, 217
- Long, J. H.* A text-book of urine analysis (Review)..... 26, 388
 — A text-book of physiological chemistry (Review). 35, 192
 — Elements of general chemistry, 4th ed. (Review). 36, 619
 — A text-book of elementary analytical chemistry, 3rd ed. (Review)..... 37, 547
 — A text-book of physiological chemistry, 2nd ed. (Review)..... 43, 470
- Longinescu, G.-G.* See *Istrati, C.-I.*
- Loomis, N. E. and Acree, S. F.* A study of the hydrogen electrode, of the calomel electrode and of contact potential..... 46, 585
 — and *Acree, S. F.* The application of the hydrogen electrode to the measurement of the hydrolysis of aniline hydrochloride, and the ionization of acetic acid in the presence of neutral salts..... 46, 621
 — See *Cooper, H. C.*
- Lord, N. W.* Notes on metallurgical analysis, 2nd ed. (Review)..... 30, 244
 — and *Demorest, D. J.* Metallurgical analysis, 3rd ed. (Review)..... 50, 481
- Lorenz, H. W. F.* See *Löb, W.*
- Lorenz, R.* Elektrochemisches Praktikum (Review)..... 26, 470
 — Elektrolyse geschmolzener Salze (Review).....
 1ter Teil, 35, 373; 2ter Teil, 35, 547; 3ter Teil, 36, 527
- Louis, H.* See *Schnabel, C.*
- Lovelace, B. F.* Theories of osmotic pressure (Report)... 39, 546
 — A chemically active modification of nitrogen (Report)..... 49, 158
 — See *Morse, H. N., Tingle, J. B.*
- Loy, S. K. and Acree, S. F.* On the reaction of iodacetonitrile with silver nitrate..... 45, 224
- Lucion, R.* Elektrolytische Alkalichloridzerlegung mit flüssigen Metallkathoden (Review)..... 37, 204
- Lüning, O.* See *Beckurts, H.*
- Lunge, G.* Improvements in the manufacture of sulphuric acid (Note)..... 23, 83

<i>Lunge, G. and Cohn, A. I.</i> Techno-chemical analysis (Review).....	34,	168
— The manufacture of sulphuric acid and alkali, Vol. III, 3rd ed. (Review).....	47,	354
— and <i>Keane, C. A.</i> Technical methods of chemical analysis, Vol. II (Review).....	48,	190
— and <i>Köhler, H.</i> Die Industrie des Steinkohlenteers und des Ammoniaks, 5te Aufl. (Review).....	49,	260
— See <i>Winkler, C.</i>		
<i>Luther, R.</i> See <i>Abegg, R.</i>		
 <i>MABERY, C. F.</i> Investigations on the composition of petroleum.....	25,	253
— and <i>Hudson, E. J.</i> On the composition of California petroleum.....	25,	253
— and <i>Sieplein, O. J.</i> On the chlorine derivatives of the hydrocarbons in California petroleum.....	25,	284
— and <i>Takano, S.</i> On the composition of Japanese petroleum.....	25,	297
— and <i>Goldstein, A. H.</i> On the specific heats and heat of vaporization of the paraffin and methylene hydrocarbons.....	28,	66
— The composition of petroleum. On the hydrocarbons in Pennsylvania petroleum with boiling points above 216°.....	28,	165
— An apparatus for continuous vacuum distillation.....	29,	171
— and <i>Shepherd, L.</i> A method for determining the index of refraction of solid hydrocarbons with the Pulfrich refractometer. Index of refraction of the solid hydrocarbons in petroleum.....	29,	274
— On the composition of petroleum.....	33,	251
— and <i>Palm, O. H.</i> The hydrocarbons in Ohio Trenton limestone petroleum with boiling points above 213°.....	33,	251
— The hydrocarbons in Canadian petroleum with high boiling points.....	33,	263
— Hydrocarbons in Santa Barbara crude oil.....	33,	270
— and <i>Sieplein, O. J.</i> Separation of solid paraffin hydrocarbons from petroleum without distillation.....	33,	276
— The solid paraffin hydrocarbons that collect in certain oil wells in Pennsylvania.....	33,	278
— Composition of commercial paraffin.....	33,	285
— Composition of commercial vaseline, cosmoline and similar products.....	33,	291
— On the composition of petroleum.....	35,	404

- Mabery, C. F. and Quayle, W. O.* The sulphur compounds and unsaturated hydrocarbons in Canadian petroleum..... 35, 404
- McCaw, E. C.* See *Kastle, J. H.*
- McCollum, E. V.* See *Johnson, T. B.*
- McCoy, H. N.* On the hydrochlorides of carbophenyl-imido derivatives..... 21, 111
- An apparatus for determining molecular weights by the boiling-point method 23, 353
- Equilibrium in the system composed of sodium carbonate, sodium bicarbonate, carbon dioxide and water..... 29, 437
- On the ionization constants of phenolphthalein, and the use of this body as an indicator..... 31, 503
- McCracken, W.* Studies in catalysis. V. The catalysis of imidoesters..... 39, 586
- McCrae, J.* See *Arrhenius, S., Landolt, H., Reychler, A.*
- McCrudden, F. H.* Uric acid (Review)..... 36, 323
- McDole, G. R.* See *Alway, F. J.*
- MacDonald, M. B.* See *Kohler, E. P.*
- McFarland, D. F.* See *Wheeler, H. L.*
- McGowan, G.* See *Meyer, E. von.*
- McGregory, J. F.* A manual of qualitative chemical analysis (Review)..... 31, 586; revised ed., 44, 200
- McHargue, J. S.* See *Kastle, J. H.*
- Macintire, B. G.* See *Norris, J. F.*
- McIntosh, J. G.* See *Livache, A.*
- McKee, R. H.* On the oxygen ethers of the ureas: methyl- and ethylisourea..... 26, 209
- On the preparation of the cyanamides..... 36, 208
- and *Berkheiser, E. J.* Water of crystallization as affected by light. I..... 40, 303
- The oxygen ethers of the dialkylureas..... 42, 1
- Mackenzie, A. S.* See *Creighton, H. J. M.*
- MacKenzie, D.* Investigation of electrolytes with the ultramicroscope (Report)..... 43, 556
- Mackenzie, K. G.* See *Johnson, T. B.*
- McKenzie, R. M.* Double chlorides of ferric and ferrous iron with some aromatic bases..... 50, 308
- MacLaurin, R. D.* See *Jackson, C. L.*
- McLeod, A. F.* On aldol, pentaerythrose and the action of copper acetate on the hexoses..... 37, 20
- MacLeod, A. L.* See *Kohler, E. P.*
- A comparison of certain acids containing a conjugated system of double linkages..... 44, 331
- MacLeod, G.* See *Norris, J. F.*

<i>MacLeod, J. J.</i>	See <i>Haskins, H. D.</i>	
<i>McMaster, L.</i>	On the preparation and properties of the ammonium salts of some organic acids.....	49, 294
—	See <i>Jones, H. C., Keiser, E. H.</i>	
<i>McNally, W. D.</i>	See <i>Hale, W. J.</i>	
<i>McPherson, W.</i>	On the nature of the oxyazo compounds.	22, 364; Note, 25, 80
—	and <i>Gore, H. C.</i> The constitution of the oxyazo compounds.....	25, 485
—	and <i>Henderson, W. E.</i> An elementary study of chemistry, revised ed. (Review).....	37, 292
<i>Mahin, E. G.</i>	See <i>Jones, H. C.</i>	
<i>Maire, F.</i>	Modern pigments and their vehicles (Review).	40, 313
<i>Mallet, J. W.</i>	On the formation of platinum tetrachloride from aqueous hydrochloric acid by atmospheric oxidation in contact with platinum black.....	25, 430
<i>Manchol, W.</i>	See <i>Holleman, A. F.</i>	
<i>Mandel, J. A.</i>	See <i>Arnold, C.</i>	
<i>Mann, G.</i>	Chemistry of the proteids (Review).....	36, 415
<i>Mannheim, E.</i>	Toxikologische Chemie (Review).....	44, 564
<i>Manning, C. R.</i>	See <i>Benedict, F. G.</i>	
<i>Maquenne, L.</i>	Les sucres et leurs principaux dérivés (Review).....	23, 267
<i>Marchlewski, L.</i>	See <i>Jacobson, C. A.</i>	
<i>Markwald, W. and Turner, B. B.</i>	Radioactivity (Report).....	41, 515
<i>Marcusson, J.</i>	Laboratoriumsbuch für die Industrie der Oele und Fette (Review).....	47, 183
<i>Markownikoff, H.</i>	Correspondence.....	25, 518
<i>Marshall, Jr., E. K. and Acree, S. F.</i>	Catalysis. XIV. On the reversible addition of alcohols to nitriles catalyzed by ethylates. I.....	49, 127
—	<i>Harrison, J. P. and Acree, S. F.</i> Catalysis. XVI. On the reactions of both the ions and the nonionized forms of electrolytes. The reversible addition of alcohols to nitriles catalyzed by sodium ethylate. II.....	49, 369
—	See <i>Nirdlinger, S.</i>	
<i>Martin, F. W.</i>	A laboratory guide to qualitative analysis with the blowpipe (Review).....	31, 194
<i>Martin, G.</i>	Researches on the affinities of the elements (Review).....	35, 292
—	Practical chemistry (Review).....	39, 435
<i>Martin, N. A.</i>	See <i>Foote, H. W.</i>	
<i>Mason, W. P.</i>	Examination of water (Review).....	21, 543
—	Water supply, 3rd ed. (Review).....	29, 177

- Mather, W. T.* A new apparatus for determining the relative velocities of ions; with some results for silver ions..... 26, 473
- Mathewson, C. H. and Wells, H. L.* On iodocyanides of potassium and caesium..... 30, 430
- and *Wells, H. L.* On a compound of mercuric cyanide and caesium iodide..... 30, 432
- First principles of chemical theory (Review)..... 43, 92
- See *Ruer, R.*
- Mathewson, W. E. and Calvin, J. W.* A method of determining hydrogen peroxide; and ferrous salts and other reducing agents..... 36, 113
- Mathias, E.* Le point critique des corps purs (Review).. 31, 589
- Matthews, J. M.* See *Alexeyeff, P., Allen, A. H.*
- Mayer, R. and Oettingen, A. von.* Die Mechanik der Wärme (Review)..... 47, 267
- Mayo, A. D.* See *Frankforter, G. B.*
- Meade, H. A.* See *Johnson, T. B.*
- Meade, R. K.* Portland cement (Review)..... 37, 203
- The design and equipment of small chemical laboratories (Review)..... 41, 450
- Portland cement, 2nd ed. (Review)..... 47, 526
- See *Price, W. B.*
- Mears, B.* See *Morse, H. N.*
- Mecklenburg, W.* See *Fages y Virgili, J.*
- Medicus, L.* Kurze Einleitung zur qualitativen Analyse (Review) 8te u. 9te Aufl., 21, 276; 11te Aufl., 27, 235
- Kurze Anleitung zur Massanalyse, 7te u. 8te Aufl. (Review)..... 29, 516
- Einleitung in die chemische Analyse, 1tes Heft, 12te u. 13te Aufl. (Review)..... 34, 474
- Kurze Anleitung zur Massanalyse, 9te u. 10te Aufl. (Review)..... 47, 86
- Megraw, H. A.* See *Orndorff, W. R.*
- Meldola, R.* The chemical synthesis of vital products, Vol. I (Review)..... 34, 107
- Meldrum, A. M.* Avogadro and Dalton (Review)..... 34, 353
- Melick, C. W.* Dairy laboratory guide (Review)..... 40, 129
- Mellor, J. W.* Higher mathematics for students of chemistry and physics (Review)..... 29, 287
- Chemical statics and dynamics (Review)..... 34, 171
- Higher mathematics for students of chemistry and physics, 2nd ed. (Review)..... 36, 219
- Mendeléeff, D. and Kamensky, G.* An attempt towards a chemical conception of the ether (Review)..... 33, 517

<i>Mendeléeff, D., Kamensky, G. and Pope, T. H.</i> The principles of chemistry, 3rd English ed. (Review)...	34,	350
<i>Menge, G. A.</i> See <i>Foote, H. W., Johnson, T. B.</i>		
<i>Merck, E. and Schenk, H.</i> Chemical reagents (Review)...	39,	312
—— Prüfung der chemischen Reagentien auf Reinheit, 2te Aufl. (Review).....	48,	196
<i>Merriam, E. S.</i> See <i>Danneel, H.</i>		
<i>Merriam, H. F.</i> The potassium-silver thiocyanates.....	28,	265
—— The caesium-calcium, caesium-strontium and caesium-magnesium thiocyanates.....	28,	266
—— Caesium-silver-strontium and caesium-cuprous-strontium thiocyanates.....	28,	274
—— The caesium-silver-calcium and the caesium-silver-magnesium thiocyanates.....	28,	275
—— See <i>Wells, H. L., Wheeler, H. L.</i>		
<i>Merrill, G. P.</i> Rocks, rock-weathering and soils (Review).	34,	106
<i>Metz, H. A.</i> The year-book for colorists and dyers, XII (Review).....	45,	326
<i>Metzger, F. J.</i> Thallous thallic nitrate.....	26,	277
—— See <i>Wells, H. L.</i>		
<i>Meyer, E. von and McGowan, G.</i> A history of chemistry, 3rd English ed. (Review).....	38,	118
<i>Meyer, H. and Tingle, J. B.</i> Determination of radicles in carbon compounds (Review).....	23, 451; 2nd ed., 30, 351; 3rd ed., 41,	162
<i>Meyer, J.</i> Einführung in die Thermodynamik auf energetischer Grundlage (Review).....	36,	219
<i>Meyer, J.</i> See <i>Danneel, H.</i>		
<i>Meyer, O. E. and Baynes, R. E.</i> The kinetic theory of gases (Review).....	23,	272
<i>Meyer, R.</i> Jahrbuch der Chemie (Review).....		
IX, 24, 467; X, 26, 471; XII, 31, 448; XIII, 33, 433; XIV, 35, 375; XV, 37, 291; XVI, 38, 748; XVII, 42, 370; XIX, 46, 113; XX, 47, 266; XXI, 49,		523
<i>Meyer, R. J. and Hauser, O.</i> Die Analyse der seltenen Erden und der Erdsäuren (Review).....	49,	264
<i>Meyerhoffer, W.</i> Gleichgewichte der Stereoisomeren (Review).....	39,	156
—— See <i>Börnstein, R.</i>		
<i>Michael, A. and Conn, W. T.</i> On chlorine heptoxide....	23,	444
—— and <i>Conn, W. T.</i> On the behavior of iodine and bromine towards chlorine heptoxide and perchloric acid.....	25,	89
—— On methyl cyanide as a catalytic reagent; and a criticism of J. U. Nef's views on the Frankland, Wurtz and Conrad reactions.....	25,	419

- Michael, A.* On the condensation of oxalic ethyl ester with ethylene and trimethylene cyanides..... 30, 156
- and *Garner, W. W.* Cinnamylideneacetic acid and some of its transformation products..... 35, 258
- and *Garner, W. W.* Magnesium permanganate as an oxidizing agent..... 35, 267
- and *Lamb, A. B.* The isomerism of ethylcoumaric and ethylcoumarinic acids..... 36, 552
- Stereoisomerism and the law of entropy..... 39, 1
- and *Smith, H. D.* The addition of halogens to cinnamic acid and some of its derivatives..... 39, 16
- and *Brunel, R. F.* Laws of addition in organic chemistry. I. On the relative ease of addition in the alkene group..... 41, 118
- On the application of physical chemical methods to determine the mechanism of organic reactions.. 43, 322
- and *Murphy, Jr., A.* On the action of chlorine in a solution of carbon tetrachloride and of carbon tetrachloride on metallic oxides..... 44, 365
- and *Brunel, R. F.* Laws of addition in organic chemistry. II. On the action of aqueous solutions of acids on alkenes..... 48, 267
- On the Perkin reaction: a reply to the criticism of H. Meyer and Beer..... 50, 411
- Michael, H. A.* Studies in plant and organic chemistry and literary papers (Review)..... 38, 748
- Miller, A. S.* A manual of assaying (Review)..... 25, 249
- The cyanide process, 2nd ed. (Review)..... 36, 619
- Miller, E. H.* Quantitative analysis for mining engineers (Review)..... 32, 405
- Miller, Jr., W. W.* Analysis of emery from Virginia... 22, 212
- Examination of a sandstone from Augusta County, Virginia..... 22, 216
- Analysis of smithsonite from Arkansas..... 22, 218
- Mills, J.* An introduction to thermodynamics for engineering students (Review)..... 46, 212
- Minet, A. and Abel, E.* Die Gewinnung des Aluminiums (Review)..... 30, 165
- and *Waldo, L.* The production of aluminium and its industrial use (Review)..... 35, 548
- Minunni, G.* See *Bödlander, G.*
- Mitreiter, M.* Die Gewinnung des Broms in die Kali-industrie (Review)..... 45, 217
- Mittelstaedt, O. and Bourbakis, C. J.* Technical calculations for sugar works (Review)..... 44, 389

<i>Möller, J.</i> Die elektrochemische Reduktion der Nitro- derivate organischer Verbindungen (Review).....	33,	99
<i>Mohr, E.</i> Anleitung zur zweckmässigen Rechnen bei chemischen präparativen Arbeiten (Review).....	43,	566
— See <i>Bernthsen, A.</i>		
<i>Moissan, H.</i> Le fluor et ses composés (Review).....	26,	92
— and <i>Lenher, V.</i> The electric furnace (Review)..	32,	406
— and <i>Mouilpied, A. T. de.</i> The electric furnace (Review).....	33,	607
<i>Moldenhauer, W.</i> Chemisch-technisches Praktikum (Re- view).....	49,	263
<i>Molinari, E.</i> Chimica generale e applicata al' industria, Vol. II (Review).....	44,	202
— Trattato di chimica inorganica, 3a ed. (Review)..	46,	212
— Trattato di chimica organica, 2a ed. (Review)..	49,	73
— and <i>Feilmann, E.</i> Treatise on general and in- dustrial inorganic chemistry (Review).....	49,	521
— and <i>Pope, T. H.</i> Treatise on general and indus- trial organic chemistry (Review).....	50,	256
<i>Mommers, R.</i> See <i>Norris, J. F.</i>		
<i>Montagne, P. J.</i> On the pinacone-pinacolin rearrange- ment.....	33,	604
<i>Montgomery, J. P.</i> The relation of heat of vaporization to other constants at the boiling temperature of some liquids at atmospheric pressure.....	46,	298
<i>Moody, H. R.</i> A college text-book of quantitative anal- ysis (Review)	50,	336
<i>Moore, C. J.</i> Logarithmic reduction tables (Review)....	50,	340
<i>Moore, F. J.</i> Outlines of organic chemistry (Review)...	48,	382
— Experiments in organic chemistry (Review)....	48,	467
<i>Moore, R. B.</i> A laboratory chemistry (Review).....	33,	607
<i>Moore, T. E.</i> See <i>Pearce, J. N.</i>		
<i>Moran, R. C.</i> See <i>Johnson, T. B.</i>		
<i>Morgan, J. L. R.</i> The elements of physical chemistry (Review).....	21, 459; 2nd ed., 28, 242; 3rd ed.,	593
— Physical chemistry for electrical engineers (Re- view).....	36,	324
— The elements of physical chemistry, 4th ed. (Review).....	42,	96
— Physical chemistry for electrical engineers, 2nd ed. (Review).....	44,	109
<i>Morgan, W. C.</i> Notes on the space isomerism of the toluquinoneoxime ethers.....	22,	402
— Qualitative analysis (Review).....	37,	662
— See <i>Bridge, J. L.</i>		
<i>Morse, H. N. and Byers, H. G.</i> On the cause of the evolu-		

tion of oxygen when oxidizable gases are absorbed by permanganic acid.....	23,	313
<i>Morse, H. N. and Olsen, J. C.</i> Permanganic acid by electrolysis.....	23,	431
— and <i>Horn, D. W.</i> The action of carbon dioxide on the borates of barium.....	24,	105
— and <i>Horn, D. W.</i> The preparation of osmotic membranes by electrolysis.....	26,	80
— and <i>Frazer, J. C. W.</i> The preparation of cells for the measurement of high osmotic pressures....	28,	1
— New osmotic membranes prepared by the electrolytic process (preliminary announcement).....	29,	173
— and <i>Frazer, J. C. W.</i> A new electric furnace and various other electric heating appliances for laboratory use.....	32,	93
— and <i>Taylor, L. S.</i> An electrical method for the combustion of organic compounds.....	33,	591
— and <i>Frazer, J. C. W.</i> The osmotic pressure and freezing points of solutions of cane sugar.....	34,	1
— Exercises in quantitative chemistry (Review)...	35,	376
— and <i>Gray, C. W.</i> An electrical method for the simultaneous determination of hydrogen, carbon and sulphur in organic compounds.....	35,	451
— <i>Frazer, J. C. W. and Hopkins, B. S.</i> The osmotic pressure and the depression of the freezing points of solutions of glucose.....	36,	1
— <i>Frazer, J. C. W., Hoffman, E. J. and Kennon, W. L.</i> A redetermination of the osmotic pressure and of the depression of the freezing points of cane sugar solutions.....	36,	39
— <i>Frazer, J. C. W. and Lovelace, B. F.</i> The osmotic pressure and the depression of the freezing points of solutions of glucose.....	37,	324
— <i>Frazer, J. C. W. and Holland, W. W.</i> The osmotic pressure of cane sugar solutions in the vicinity of the freezing point of water.....	37,	425
— <i>Frazer, J. C. W. and Rogers, F. M.</i> The osmotic pressure of glucose solutions in the vicinity of the freezing point of water.....	37,	558
— <i>Frazer, J. C. W. and Dunbar, P. B.</i> The osmotic pressure of cane sugar solutions in the vicinity of 5°.....	38,	175
— and <i>Morse, H. V.</i> The osmotic pressure of cane sugar solutions at 10°.....	39,	667
— and <i>Holland, W. W.</i> The osmotic pressure of glucose solutions at 10°.....	40,	1

<i>Morse, H. N. and Mears, B.</i> The osmotic pressure of cane sugar solutions at 15°	49,	194
— and <i>Mears, B.</i> Improvement in cells for the measurement of osmotic pressure	40,	266
— and <i>Lovelace, B. F.</i> Improvements in manometers for the measurement of osmotic pressure	40,	325
— and <i>Holland, W. W.</i> The osmotic pressure of cane sugar solutions at 25°	41,	1
— and <i>Holland, W. W.</i> The regulation of temperature in the measurement of osmotic pressure	41,	92
— and <i>Holland, W. W.</i> The osmotic pressure of cane sugar solutions at 20°	41,	257
— <i>Holland, W. W., Frazer, J. C. W. and Mears, B.</i> The relation of osmotic pressure to temperature: I. The manufacture of the cells employed in the measurements	45,	91
— <i>Holland, W. W. and Carpenter, J. L.</i> The relation of osmotic pressure to temperature: II. The manometers	45,	237
— <i>Holland, W. W. and Zies, E. G.</i> The relation of osmotic pressure to temperature: III. The regulation of temperature	45,	383
— <i>Holland, W. W. and Myers, C. N.</i> The relation of osmotic pressure to temperature: IV. The membranes	45,	517
— <i>Holland, W. W., Zies, E. G., Myers, C. N., Clark, W. N. and Gill, E. E.</i> The relation of osmotic pressure to temperature: V. The measurements	45,	554
— <i>Holland, W. W., Myers, C. N., Cash, G. and Zinn, J. B.</i> The osmotic pressure of cane sugar solutions at high temperatures	48,	29
<i>Morse, H. V.</i> See <i>Morse, H. N.</i>		
<i>Morse, H. W.</i> See <i>Ostwald, Wilhelm.</i>		
<i>Morton, D. A.</i> See <i>Orndorff, W. R.</i>		
<i>Moser, L.</i> Die Bestimmungsmethoden des Wismuts (Review)	44,	563
<i>Moses, A. J. and Parsons, C. L.</i> Elements of mineralogy, crystallography and blowpipe analysis (Review)		
..... New ed., 25, 250; 3rd ed., 34, 172; 4th ed., 43,		565
<i>Mott, O. E.</i> See <i>Holleman, A. F.</i>		
<i>Mouilpied, A. T. de.</i> See <i>Moissan, H.</i>		
<i>Moureu, C.</i> Notions fondamentales de chimie organique, 4me éd. (Review)	50,	499
<i>Müller, G. and Bennigson, F.</i> Die chemische Industrie (Review)	42,	475

- Muir, M. M. P.* The story of alchemy and beginners of chemistry (Review)..... 30, 164
 — The elements of chemistry (Review)..... 32, 611
 — A history of chemical theories and laws (Review). 37, 544
 — See *Lassar-Cohn*.
- Mulliken, S. P. and Scudder, H.* A simple color reaction for methyl alcohol..... 21, 266
 — and *Barker, E. R.* Reactions for the detection of the nitro group..... 21, 271
 — and *Scudder, H.* The detection of methyl alcohol in mixtures..... 24, 444
 — *Brown, J. W. and French, P. R.* On the importance of formic aldehyde as a product of the partial combustion of organic compounds..... 25, 111
 — A method for the identification of pure organic compounds, Vol. I (Review)..... 32, 404
 — Identification of the commercial dyestuffs (Review)..... 45, 326
- Munroe, C. E.* See *Brunswick, H.*
- Murphy, Jr., A.* See *Michael, A.*
- Murray, G.* See *Jones, H. C.*
- Murray, J. A.* Soils and manures (Review)..... 45, 90
 — See *Dodgson, J. W.*
- Musu-Boy, R.* Lo zinco (Review)..... 43, 566
- Muter, J.* A short manual of analytical chemistry (Review)..... 2nd American ed., 21, 182; 4th ed., 36, 415
- Myers, C. N. and Acree, S. F.* Studies of electromotive force. IV. A study of the hydrogen electrode, of the calomel electrode and of contact potential.... 50, 396
 — See *Morse, H. N.*
- NAGEL, I.* On the rancidity of fats..... 23, 173
- Nagel, O.* Producer gas-fired furnaces (Review)..... 44, 481
 — The mechanical appliances of the chemical and metallurgical industries, 2nd ed. (Review)..... 44, 561
 — See *Jüptner, H. v.*
- Nakaseko, R.* Some transformations of *m*-sulphamidobenzoic acid under the influence of heat..... 47, 429
- Naske, C.* Zerkleinerungsvorrichtungen und Mahlanlagen (Review)..... 46, 308
- Neave, G. B. and Heilbron, I. M.* The identification of organic compounds (Review)..... 47, 359
- Nelson, B. E.* Introduction to the analysis of drugs and medicines (Review)..... 45, 613
- Nelson, J. M.* See *White, J.*
- Nencki, M.* Marcelli Nencki opera omnia (Review)..... 34, 352

<i>Nernst, W.</i> Theoretische Chemie, 2te Aufl. (Review)....	23,	179
— and <i>Borchers, W.</i> Jahrbuch der Elektrochemie, VII (Review).....	27,	79
— and <i>Lehfeldt, R. A.</i> Theoretical chemistry (Review).....	34,	169
— and <i>Corvisy, A.</i> Traité de chimie générale (Review).....	1re partie, 46, 313; 2me partie, 47,	529
<i>Neumann, B.</i> Post's chemisch-technische Analyse, 1ter Band, 1tes Heft, 2ter Band, 1tes Heft (Review)....	37,	655
— Elektrometallurgie des Eisens (Review).....	38,	509
— Post's chemisch-technische Analyse, 3te Aufl. (Review).....		
1ter Band, 2tes Heft, 38, 654; 3tes Heft, 39, 662;		
2ter Band, 2tes Heft, 39, 663; 1ter Band, 4tes Heft, 40, 214; 2ter Band, 3tes Heft, 41, 448; 4tes Heft, 44,		563
— See <i>Post, J.</i>		
<i>Newell, L. C.</i> Experimental chemistry (Review).....	24,	468
— Descriptive chemistry (Review).....	31,	86
— A course in inorganic chemistry (Review).....	42,	475
<i>Newth, G. S.</i> A manual of chemical analysis, qualitative and quantitative (Review).....	21,	99
— Smaller chemical analysis (Review).....	38,	252
<i>Nichols, E. H.</i> See <i>Orndorff, W. R.</i>		
<i>Nichols, H. W.</i> A new test for chlorine for use with the blowpipe.....	25,	315
<i>Nichols, W. R.</i> See <i>Eliot, C. W.</i>		
<i>Nicloux, M.</i> Contribution à l'étude de la saponification des corps gras (Review).....	37,	548
<i>Nicolet, B. H.</i> See <i>Johnson, T. B., Wheeler, H. L.</i>		
<i>Nikaido, Y.</i> Beet-sugar making and its chemical control (Review).....	44,	203
<i>Nirdlinger, S. and Acree, S. F.</i> Urazoles. XV. On the reactions of diazoalkyls with 1-phenyl-2-methylurazole.....	43,	358
— <i>Marshall, Jr., E. K. and Acree, S. F.</i> Note on the reactions of diazoalkyls with 1-phenyl-2-methylurazole.....	43,	424
— and <i>Acree, S. F.</i> Urazoles. XVII. On the rearrangement of the tautomeric salts of 1,4-diphenyl-5-thionurazole and 1,4-diphenyl-5-thiolurazole.....	44,	219
— <i>Rogers, F. M. and Acree, S. F.</i> Catalysis. XIII. On the reaction of ethyl iodide with sodium 1-phenyl-3-thiourazole.....	49,	116
— See <i>Acree, S. F.</i>		

<i>Nissenson, H.</i> Einrichtungen von electrolytischen Laboratorien (Review).....	29,	395
— Die Untersuchungsmethoden des Zinks (Review).....	39,	432
<i>Norden, K.</i> Elektrolytische Zähler (Review).....	42,	182
<i>Norris, J. F. and Franklin, A. I.</i> The composition of nitrogen iodide and the action of iodine on the fatty amines.....	21,	499
— <i>Fay, H. and Edgerly, D. W.</i> The preparation of pure tellurium.....	23,	105
— and <i>Fay, H.</i> The reduction of selenium dioxide by sodium thiosulphate.....	23,	119
— and <i>Mommers, R.</i> On the isomorphism of selenium and tellurium.....	23,	486
— and <i>Sanders, W. W.</i> On triphenylchlormethane.....	25,	54
— On the nonexistence of trivalent carbon.....	25,	117
— and <i>Green, E. H.</i> Some new derivatives of secondary butyl alcohol.....	26,	293
— and <i>Kingman, W. A.</i> On the isomorphism of selenates and tellurates.....	26,	318
— The chemistry of the purine group (Report)....	26,	463
— and <i>Green, E. H.</i> The condensation of carbon tetrachloride with halogen derivatives of benzene by means of the Friedel and Crafts reaction.....	26,	492
— and <i>MacLeod, G.</i> On the preparation of triphenylmethane.....	26,	499
— <i>Macintire, B. G. and Corse, W. M.</i> The decomposition of diazonium salts with phenols.....	29,	120
— and <i>Culver, L. R.</i> The action of zinc on triphenylchlormethane.....	29,	120
— and <i>Franklin, D. R.</i> The action of zinc on benzoyl chloride.....	29,	141
— The action of zinc on triphenylchlormethane. II.....	29,	609
— and <i>Twieg, W. C.</i> The condensation of carbon tetrachloride with chlorbenzene by means of the Friedel and Crafts reaction.....	30,	392
— On the base-forming property of carbon.....	38,	627
— The principles of organic chemistry (Review)..	49,	524
<i>Norris, R. S.</i> On <i>p</i> -nitro- <i>o</i> -tolylphenylsulphone.....	24,	469
<i>North, 2nd, E.</i> See <i>Fay, H.</i>		
<i>North, H. and Schortemeyer, F. H.</i> Report of Lehn and Fink's analytical department for 1910-12 (Review).	50,	134
<i>North, H. B.</i> Laboratory experiments in general chemistry (Review).....	50,	471
— See <i>Richards, W. A.</i>		

<i>Novy, F. G.</i> See <i>Freer, P. C., Vaughn, V. C.</i>		
<i>Nowell, J. W.</i> Action of heat on <i>p</i> -sulphamido- <i>o</i> -toluic acid.....	43,	223
<i>Noyes, A. A.</i> An introduction to the study of the general principles of chemistry (Review).....	30,	84
— and <i>Bray, W. C.</i> A system of qualitative analysis (Review).....	38,	119
<i>Noyes, W. A.</i> Camphoric acid.....VI, 22, 1; VII, 22,		256
— and <i>Shepherd, J. W.</i> α -Hydroxydihydrocis-campholytic acid.....	22,	262
— Camphoric acid. VIII.....	23,	128
— and <i>Phillips, E. F.</i> Camphoric acid: IX. Structure and configuration of cistranscampholytic acid.....	24,	285
— On the zinc-copper couple for preparing zinc ethyl (Note).....	24,	467
— and <i>Blanchard, W. M.</i> Camphoric acid. X. Racemic campholytic and racemic dihydrohydroxycampholytic acid.....	26,	281
— The elements of qualitative analysis, 5th ed. (Review).....	27,	80
— and <i>Patterson, A. M.</i> Camphoric acid:		
XI. Confirmation of <i>Bredt's</i> formula; some derivatives of inactive camphoric acid.....	27,	425
XII. Synthesis of trimethylparaconic acid.....	28,	228
— and <i>Warren, R. C.</i> Camphoric acid. XIII. Camphanic and camphononic acids.....	28,	480
— A text-book of organic chemistry (Review).....	31,	85
— and <i>Taveau, R. deM.</i> The decomposition of nitroso compounds.....	32,	285
— Camphoric acid. XIV. Derivatives of trimethylparaconic acid.....	33,	356
— and <i>Taveau, R. deM.</i> Camphoric acid. XV. Some derivatives of aminolauronic acid.....	35,	379
— and <i>Waters, C. E.</i> Chemical Abstracts, Vol. I, No. 1 (Review).....	37,	287
— and <i>Ostwald, Walter.</i> Kurzes Lehrbuch der organischen Chemie (Review).....	39,	799
— A text-book of organic chemistry, 2nd ed. (Review).....	45,	412
— Organic chemistry for the laboratory, 2nd ed. (Review).....	46,	650
— and <i>Smith, G. McP.</i> The elements of qualitative analysis, 6th ed. (Review).....	47,	453
— A text-book of chemistry (Review).....	50,	468
<i>Nussbaum, J.</i> See <i>Ebert, W.</i>		

- O'BYRNE, L. See *Tingle, J. B.*
- Odén, S. Der kolloide Schwefel (Review)..... 50, 495
- Oenslager, G. See *Soch, C. A.*
- Oesper, R. See *Jones, L. W.*
- Oettingen, A. von. See *Mayer, R.*
- Oilar, R. D. Investigation of the Halphin color test as to its value for the detection of cottonseed oil..... 24, 355
- Olsen, J. C. A suggested explanation of the reduction of permanganic acid by manganese peroxide..... 29, 242
- and White, F. S. Further study of the decomposition of permanganic acid by manganese peroxide. 29, 246
- A text-book of quantitative chemical analysis (Review)..... 33, 329
- Van Nostrand's chemical annual (Review)..... 1907, 37, 657; 1909, 45, 615
- Pure foods (Review)..... 47, 457
- See *Morse, H. N.*
- O'Neill, E. C. See *Stillman, J. M.*
- Oppenheimer, C. Grundriss der anorganischen Chemie (Review)..... 6te Aufl., 47, 86; 7te Aufl., 49, 433
- Orndorff, W. R. and Megraw, H. A. Dimethyldianthracene; a polymeric modification of β -methylanthracene..... 22, 152
- and Richmond, F. A. Phenyl mustard oil as a reagent for the detection of the alcoholic hydroxyl group..... 22, 458
- and Morton, D. A. Anethol and its isomers. II. 23, 181
- and Brewer, C. E. The constitution of gallein and coerulein (preliminary article)..... 23, 425
- and Teeple, J. E. On bilirubin, the red coloring matter of the bile (preliminary paper)..... 26, 86
- and Brewer, C. E. The constitution of gallein and coerulein..... 26, 97
- and Thebaud, E. D. On the two modifications of benzene-4-azoresorcin and the constitution of the oxyazo compounds..... 26, 159
- and Teeple, J. E. On bilirubin, the red coloring matter of the bile..... 33, 215
- and Black, J. A. Phenoltetrachlorphthalein and some of its derivatives..... 41, 349
- and Delbridge, T. G. Tetrachlorgallein and some of its derivatives..... 42, 183
- and Ray, B. J. Some disazo and trisazo derivatives of resorcin..... 44, I
- and Delbridge, T. G. Tetrachlorgallein and some of its derivatives. II..... 46, I

<i>Orndorff, W. R. and Pratt, D. S.</i> The two phthaloximes and some of their derivatives.....	47,	89
— and <i>Nichols, E. H.</i> Octochloroindigo and some derivatives of tetrachloroanthranilic and tetrachlorophthalic acids.....	48,	473
— See <i>Salkowski, E.</i>		
<i>Orton, K. J. P.</i> See <i>Chattaway, F. D.</i>		
<i>Osborne, T. B.</i> The vegetable proteins (Review).....	45,	324
<i>Ostwald, Walter.</i> See <i>Noyes, W. A.</i>		
<i>Ostwald, Wilhelm.</i> Grundriss der allgemeinen Chemie, 3te Aufl. (Review).....	22,	414
— Grundlinien der anorganischen Chemie (Review).	25,	83
— Die wissenschaftlichen Grundlagen der analytischen Chemie, 3te Aufl. (Review).....	26,	93
— and <i>Findlay, A.</i> The principles of inorganic chemistry (Review).....	28,	243
— Lehrbuch der allgemeinen Chemie, 2ter Band, 2ter Teil, 2te Aufl. (Review).....	30,	84
— Grundlinien der anorganischen Chemie, 2te Aufl. (Review).....	32,	407
— Die wissenschaftlichen Grundlagen der analytischen Chemie, 4te Aufl. (Review).....	33,	605
— and <i>Ramsay, E. C.</i> Conversations on chemistry, Part I (Review).....	34,	255
— and <i>Turnbull, S. K.</i> Conversations on chemistry, Part II (Review).....	35,	543
— Die Chemische Reichsanstalt (Review).....	36,	523
— The historical development of chemistry (Review).....	37,	417
— Grundriss der allgemeinen Chemie, 4te Aufl. (Review).....	42,	291
— and <i>Morse, H. W.</i> Elementary modern chemistry (Review).....	43,	284
— and <i>Morse, H. W.</i> The fundamental principles of chemistry (Review).....	43,	469
— Ueber Katalyse, 2te Aufl. (Review).....	46,	413
— Der energetische Imperativ, 1te Reihe (Review).	49,	163
<i>Ota, K.</i> See <i>Jones, H. C.</i>		
<i>PAISLEY, J. W.</i> See <i>Endemann, H.</i>		
<i>Palm, O. H.</i> See <i>Mabery, C. F.</i>		
<i>Palmer, J. D.</i> Practical test-book of chemistry (Review).	39,	310
<i>Panayeff, J. v.</i> Verhalten der wichtigsten seltenen Erden zu Reagentien (Review).....	43,	283
<i>Pannett, C. A.</i> See <i>Lacey, H. B.</i>		
<i>Parker, H. O.</i> See <i>Garner, J. B.</i>		
<i>Parmelee, H. C.</i> See <i>Avery, S.</i>		

- Parsons, C. L.* The chemistry and literature of beryllium (Review)..... 42, 561
 — See *Moses, A. J.*
- Partington, J. R.* Higher mathematics for chemical students (Review)..... 43, 552
- Passon, M.* Kleines Handwörterbuch der Agriculturchemie (Review)..... 44, 481
- Pater, C. J.* See *Hale, W. J.*
- Patten, A. J. and Hart, E. B.* The nature of the principal phosphorus compound in wheat bran..... 31, 564
- Patten, H. E.* On the existence of perchromic acid..... 29, 385
- Patterson, A. M.* See *Noyes, W. A.*
- Pauli, W. and Fischer, M. H.* Physical chemistry in the service of medicine (Review)..... 33, 125
- Peakes, R. W.* See *Jackson, C. L.*
- Pearce, J. N. and Weigle, O. M.* Velocity coefficients of the reaction between ethyl iodide and silver nitrate in ethyl and methyl alcohols and mixtures of these solvents..... 43, 243
 — and *Moore, T. E.* Equilibrium in the system: cobalt chloride and pyridine..... 50, 218
 — See *Jones, H. C.*
- Pêcheux, H.* La grande industrie chimique (Review)..... 36, 220; 37, 288
- Pellet, M.* See *Post, J.*
- Penny, C. L.* A multiple fat extractor..... 24, 242
- Perkin, F. M.* Qualitative chemical analysis (Review)..... 26, 94
- Perkins, W. H.* See *Coward, H. F.*
- Perrin, J.* The Brownian movement and the size of the molecules (Report)..... 49, 406
- Peters, F.* Thermoelemente und Thermosäulen (Review). 41, 80
- Peterson, P. P.* Stereoisomeric chlorimido ketones..... 46, 325
- Petit, M.* Essais de Jean Rey (Review)..... 38, 250
- Pfanhauser, W.* Herstellung von Metallgegenständen auf elektrolytischem Wege und die Elektrogravüre (Review)..... 29, 395
 — Die Galvanoplastik (Review)..... 33, 98
- Phelps, I. K. and Hale, W. J.* On dehydromucic acid and certain of its derivatives..... 25, 445
 — The hydrazine derivatives of tetrachlorophthalic acid..... 33, 586
- Philippi, E.* See *Herz, W.*
- Philips, E. F.* See *Noyes, W. A.*
- Phillips, A. J.* See *Bates, P. H.*
- Phillips, F. C.* Chemical German (Review)..... 50, 476
- Phinney, J. I.* See *Jackson, C. L.*

<i>Pictet, A. and Biddle, H. C.</i> The vegetable alkaloids (Review).....	32,	617
<i>Pinckney, R. M.</i> See <i>Alway, F. J.</i>		
<i>Pirsson, L. V.</i> See <i>Cross, W.</i>		
<i>Pitaval, M. R. and Huth, M.</i> Die elektrochemische Industrie Frankreichs (Review).....	49,	428
<i>Planck, M.</i> Ueber neue thermodynamische Theorien (Review).....	48,	551
<i>Plimmer, R. H. A.</i> The chemical constitution of the proteins (Review)....	43, 91; 2nd ed., Part I,	48,
<i>Plotnikow, J.</i> Photochemische Versuchstechnik (Review).....	49,	164
<i>Pope, F. G.</i> Modern research in organic chemistry (Review).....	49,	526
<i>Pope, T. H.</i> See <i>Mendeléeff, D., Molinari, E.</i>		
<i>Porter, H. C.</i> See <i>Jackson, C. L.</i>		
<i>Post, J., Neumann, B., Chenu, G. and Pellet, M.</i> Traité complet d'analyse chimique appliquée aux essais industriels, 2me éd. française (Review)		
..... Tome 2nd, 1er fasc.,		
40, 129; 3me fasc., 45, 415; Tome 1er, 4me fasc.,		
46, 529; Tome 3me, 1er fasc., 47, 532; 2nd fasc.,	50,	492
<i>Potter, G. P.</i> The reaction between organic magnesium compounds and cinnamylidene esters. III. Reactions with the isomeric methyl esters of cinnamylidenacetic acid.....	46,	198
<i>Poulenc, C.</i> Les nouveautés chimiques (Review).....		
..... 1904, 33, 432; 1905, 35, 96; 1906,		
36, 523; 1907, 39, 310; 1908, 41, 444; 1909, 43,		
564; 1910, 47, 88; 1911, 48, 102; 1912, 49, 79; 1913,	50,	132
<i>Pozzi-Escot, E.</i> The reducing enzymes.....	29,	517
— and <i>Cohn, A. I.</i> The toxins and anti-toxins and their anti-bodies (Review).....	38,	123
<i>Pranke, E. J.</i> Cyanamid (Review).....	50,	339
<i>Pratt, D. S.</i> See <i>Orndorff, W. R.</i>		
<i>Precht, H.</i> See <i>Hoff, J. H. van't.</i>		
<i>Preiss, L. E.</i> The detection of hydrocyanic acid in the presence of sulphocyanic, hydroferrocyanic and hydroferricyanic acids and their salts (Note).....	28,	240
<i>Prescott, A. B. and Johnson, O. C.</i> Qualitative chemical analysis, 5th ed. (Review).....	26,	95
— and <i>Sullivan, E. C.</i> First book of qualitative chemistry, 11th ed. (Review).....	28,	328
<i>Prescott, S. C. and Winslow, C. E. A.</i> Elements of water bacteriology (Review). 2nd ed., 41, 80; 3rd. ed.,	50,	485
— See <i>Effront, J.</i>		

- Price, T. S. and Twiss, D. F.* A course of practical organic chemistry (Review)..... 40, 490
 — Per-acids and their salts (Review)..... 49, 73
 — See *Arrhenius, S.*
- Price, W. B.* On some manganic periodates..... 30, 182
 — and *Meade, R. K.* The technical analysis of brass and the non-ferrous alloys (Review)..... 47, 455
- Prideaux, E. B. R.* Problems in physical chemistry (Review)..... 49, 78
- Pring, J. N.* Laboratory exercises in physical chemistry (Review)..... 48, 265
- Pringsheim, H. H.* The analysis of organic substances with the help of sodium peroxide..... 31, 386
- Probeck, E. G.* See *Brunel, R. F.*
- Prost, E. and Cruickshank, J.* Manual of chemical analysis (Review)..... 34, 473
- QUAYLE, W. O. See *Mabery, C. F.*
- RADCLIFFE, L. G. and *Sinnatt, F. S.* A systematic course of practical organic chemistry (Review).... 34, 592
- Ragland, C. D.* Some double halides of cadmium with the methylamines and tetramethylammonium.... 22, 417
- Raiford, L. C. and Heyl, F. W.* The replacement of halogen by the nitro group.... I, 43, 393; II, 44, 209
 — On chlorimidoquinones..... 46, 417
- Ramsay, E. C.* See *Ostwald, Wilhelm.*
- Ramsay, W. and Travers, M. W.* Argon and its companions (Note)..... 25, 156
 — Modern chemistry (Review)..... 38, 655
 — Production of carbon dioxide from solutions of compounds of silicon, zirconium, bismuth and thorium (Report)..... 42, 150
 — Die edlen und die radioaktiven Gase (Review)... 42, 292
 — See *Gray, R. W.*
- Ransom, J. H.* On the molecular rearrangement of *o*-aminophenylethyl carbonate to *o*-oxyphenylurethane..... 23, 1
- Ray, B. J.* See *Orndorff, W. R.*
- Ray, P. C.* A history of Hindu chemistry, Vol. I (Review)..... 32, 88
- Redgrove, H. S.* On the calculation of thermochemical constants (Review)..... 42, 559
- Reed, J. V.* See *Kastle, J. H.*
- Reese, C. L.* On aqueous solutions of metallic gold, and on the purple of Cassius (Report)..... 21, 174

<i>Reese, C. L.</i> Report of the Committee on Atomic Weights of the German Chemical Society (Report).....	21,	455
— The action of chromic acid on hydrogen.....	22,	158
<i>Rehländer, P.</i> See <i>Ferchland, P.</i>		
<i>Reid, E. E.</i> Experiments on the hydrolysis of acid amides.....	21,	284
— The valuation of saccharin.....	21,	461
— The hydrolysis of acid amides.....	24,	397
— An electrically-controlled gas regulator.....	41,	148
— The alcoholysis or esterification of acid amides..	41,	483
— Studies in the preparation of nitriles.....	43,	162
— Studies in esterification: the esterification of thiolbenzoic acid by alcohol and of benzoic acid by mercaptan.....	43,	489
— The equilibrium between ammonium benzoate and benzamide and water.....	44,	76
— The esterification of benzamide and the preparation of N-substituted benzamides.....	45,	38
— The hydrolysis of acid amides.....	45,	327
— Studies in esterification. IV. The interdependence of limits as exemplified in the transformation of esters.....	45,	479
— Notes on the electrical method of Morse and Gray for the simultaneous determination of carbon, hydrogen and sulphur in organic compounds.....	47,	416
— See <i>Byers, H. G.</i>		
<i>Reimer, M.</i> The reaction of organic magnesium compounds with cinnamylidene esters. I. Reactions with methyl cinnamylidenemalonate.....	38,	227
— and <i>Reynolds, G. P.</i> The reaction between organic magnesium compounds and cinnamylidene esters. II. Reactions with methyl α -phenylcinnamylideneacetate.....	40,	428
— The action of light on esters of α -cyanocinnamylidenacetic acid.....	45,	417
— and <i>Reynolds, G. P.</i> The reaction between organic magnesium compounds and cinnamylidene esters. IV. Reactions with methyl α -methylcinnamylidenacetate.....	48,	206
— and <i>Keller, E.</i> The action of light on esters of α -cyanocinnamylidenacetic acid. II.....	50,	157
— See <i>Kohler, E. P.</i>		
<i>Remsen, I.</i> On the hydrolysis of acid amides.....	21,	281
— The boiling point of liquid hydrogen as determined by a rhodium-platinum resistance thermometer (Note).....	22,	239

<i>Remsen, I.</i> On the blue color of water (Note).....	22,	240
— Asymmetric optically active nitrogen compounds (Note).....	23,	265
— Guillaume Louis Jacques de Chalmot (Obituary).....	23,	447
— and <i>Garner, W. W.</i> On the action of aromatic sulphonchlorides on urea.....	25,	173
— and <i>Turner, H. J.</i> On the action of aromatic sulphonchlorides on thiourea.....	25,	190
— An introduction to the study of chemistry, 6th ed. (Review).....	26,	387
— On the present state of the chemistry of albumin (Report).....	27,	147
— An introduction to the study of the compounds of carbon or organic chemistry, 4th ed. (Review).....	30,	246
— Further investigations on the two isomeric chlorides of <i>o</i> -sulphobenzoic acid.....	30,	247
— Sir William Perkin (Obituary).....	38,	249
— Rudolph Fittig (Obituary).....	45,	210
— The evolution of Avogadro's theory (Report)....	50,	171
— In conclusion.....	50,	495
<i>Renouf, E.</i> Fermentation without cells (Report).....	21,	453
— Recent work on the derivatives of alkali and alkaline earth metals (Report).....	27,	487
— Hans von Pechmann (Obituary).....	28,	82
— Moissan's work on silicides (Report).....	29,	282
— Kraft's work on molecular-weight determinations in a vacuum (Report).....	33,	506
— Colloidal solutions of metals in organic solvents (Report).....	35,	187
— The oxidation of atmospheric nitrogen with reference to the manufacture of nitrates and nitric acid (Report).....	35,	358
— The change of oxygen into ozone at a high temperature and the oxidation of nitrogen (Report).....	36,	93
— Thiophosphoric acid and thiophosphates (Report).....	37,	107
— Oxides of the alkali metals (Report).....	37,	286
— Recent advances in chemical industry (Report).....	39,	791
— Hydrogen persulphides (Report).....	41,	155
— Jakob Volhard (Obituary).....	43,	281
— Hugo Erdmann (Obituary).....	44,	474
— The industrial fixation of nitrogen (Report)....	44,	544
— Heinrich Caro (Obituary).....	44,	557
<i>Revis, C.</i> See <i>Bolton, E. R.</i>		
<i>Reychler, A.</i> and <i>McCrae, J.</i> Outlines of physical chemistry (Review).....	22,	415

<i>Reynolds, G. P.</i> The reaction between organic magnesium compounds and unsaturated compounds containing alkoxyl groups.....	44,	305
— See <i>Reimer, M.</i>		
<i>Rhead, F. L. and Sexton, A. H.</i> Assaying and metallurgical analysis (Review).....	30,	82
<i>Riban, J.</i> Traité d'analyse chimique quantitative par électrolyse (Review).....	21,	541
<i>Richards, E. H. and Woodman, A. G.</i> Air, water and food from a sanitary standpoint (Review).....	25,	347
— Laboratory notes on industrial water analysis (Review).....	42,	562
<i>Richards, J. W.</i> See <i>Engelhardt, V.</i>		
<i>Richards, T. W. and Faber, H. B.</i> On the solubility of argentic bromide and chloride in solutions of sodic thiosulphate.....	21,	167
— Note on the spectra of hydrogen.....	21,	172
— An electric drying oven.....	22,	45
— International atomic weights (Report).....	24, 377; II,	335
— and <i>Archibald, E. H.</i> A study of growing crystals by instantaneous photomicrography.....	26,	61
— and <i>Fraprie, F. R.</i> The solubility of manganous sulphate.....	26,	75
— and <i>Singer, S. K.</i> The quantitative separation of hydrochloric and hydrocyanic acids.....	27,	205
— and <i>Wells, R. C.</i> The nephelometer, an instrument for detecting and estimating opalescent precipitates.....	31,	235
— Note concerning the use of the nephelometer...	35,	510
— and <i>Koppel, J.</i> Experimentelle Untersuchungen über Atomgewichte (Review).....	43,	564
<i>Richards, W. A. and North, H. B.</i> A manual of cement testing (Review).....	49,	432
<i>Richardson, C.</i> The modern asphalt pavement, 2nd ed. (Review).....	44,	108
<i>Richardson, G. M. and Adams, M.</i> Notes on the double halides of tin with the organic bases.....	22,	446
— The constitution of benzene.....	25,	123
<i>Richmond, F. A.</i> See <i>Orndorff, W. R.</i>		
<i>Richmond, G. F.</i> See <i>Clover, A. M.</i>		
<i>Richter, M. M.</i> Lexikon der Kohlenstoff-Verbindungen, 2te Aufl. (Review).....	24,	104
<i>Richter, V. von, Anschütz, R. and Smith, E. F.</i> Organic chemistry, Vol. I, 3rd American ed. (Review).....	22,	245
— <i>Anschütz, R., Schroetter, G. and Smith, E. F.</i>		

- Organic chemistry, Vol. II, 3rd American ed. (Review)..... 23, 362
- Rideal, S.* Disinfection and the preservation of food (Review)..... 31, 586
- Riggs, L. W.* Elementary manual for the chemical laboratory (Review)..... 33, 331
- Rijn, J. J. L. van.* Die Glykoside (Review)..... 25, 170
- Riley, C. M.* Toxicology, 3rd ed. (Review)..... 37, 419
- Roberts, E.* Famous chemists (Review)..... 47, 267
- Roberts, N.* An extraction apparatus..... 43, 418
- Roberts, R. T.* Caesium-cuprous thiocyanate, $\text{CsCu}(\text{SCN})_2$ 28, 262
- and *Wells, H. L.* The caesium-silver-nickel and the caesium-cuprous-nickel thiocyanates..... 28, 277
- Robertson, C. A.* See *Hale, W. J.*
- Robertson, Jr., H. C.* and *Acree, S. F.* Catalysis. XVII. On the reactions of both the ions and the non-ionized forms of electrolytes. The reactions of sodium phenolate with methyl iodide and ethyl iodide in absolute ethyl alcohol at 25° and 35°.... 49, 474
- Robertson, W.* and *Herzog, M.* Meat and food inspection (Review)..... 42, 374
- Robin, F.* Traité de métallographie (Review)..... 49, 256
- Robine, R., Lenglin, M.* and *LeClerc, A. J.* The cyanide industry (Review)..... 36, 322
- Robinson, C. J.* The combustion of halogen compounds in the presence of copper oxide..... 35, 531
- See *Tingle, J. B.*
- Rockwood, E. W.* An introduction to chemical analysis (Review)..... 27, 235; 2nd ed., 34, 472; 3rd ed., 44, 200
- Rocques, X.* Les industries de la conservation des aliments (Review)..... 36, 615
- Roemer, H.* See *Tietjens, L.*
- Roesler, H. A.* Friction in the bomb calorimeter..... 44, 80
- Rogers, A.* and *Aubert, A. B.* Industrial chemistry (Review)..... 50, 188
- Rogers, F. M.* See *Morse, H. N., Nirdlinger, S.*
- Rogers, H. F.* See *Allen, E. T.*
- Rogers, R. R.* See *Cottrell, F. G.*
- Rolfe, G. W.* The polariscope in the chemical laboratory (Review)..... 35, 375
- See *Classen, H.*
- Romburgh, P. van.* See *Cohen, E.*
- Roozeboom, H. W. B.* Die heterogenen Gleichgewichte vom Standpunkte der Phasenlehre (Review).....
.....tes Heft, 27, 78; 2tes Heft, 1ter Teil, 33, 434

<i>Roscoe, H. E. and Schorlemmer, C.</i> A treatise on chemistry, new ed. (Review), Vol. I, 35, 98; Vol. II, 40,	410
<i>Rosenhain, W.</i> Glass manufacture (Review).....	43, 93
<i>Rosenthaler, L.</i> Grundzüge der chemischen Pflanzenuntersuchung (Review)	33, 519
<i>Roth, W.</i> See <i>Comanducci, E.</i>	
<i>Roth, W. A. and Eisenlohr, F.</i> Refraktometrisches Hilfsbuch (Review).....	47, 268
<i>Rouiller, C. A.</i> Preparation of saltpeter by the process of the Badische Anilin- und Soda-Fabrik (Report). 41,	75
— Preparation of argon from air by means of calcium carbide (Report).....	41, 159
— Julius Thomsen (Obituary).....	41, 442
— Heinrich von Brunck (Obituary).....	47, 265
— Reaction between carboxylic acids and benzene-sulphonamide at high temperatures.....	47, 475
— Keto-enol tautomerism (Report).....	49, 301
— See <i>Jones, H. C.</i>	
<i>Rudolphi, M.</i> A physico-chemical review (Review)....	31, 298
<i>Rüdorff, F. and Gibson, C. B.</i> Introduction to chemical analysis for beginners (Review).....	33, 433
<i>Ruer, R. and Mathewson, C. H.</i> The elements of metallography (Review).....	44, 204
<i>Rupe, H.</i> Anleitung zum Experimentieren in der Vorlesung über organische Chemie (Review).....	43, 391
<i>Russe, F. W.</i> See <i>Hill, H. B., Jackson, C. L.</i>	
<i>Russell, E. J.</i> Soil conditions and plant growth (Review). 49,	253
<i>Russell, G. W.</i> An easily constructed barometer.....	25, 508
<i>Ruston, A. G.</i> See <i>Cohen, J. B.</i>	
<i>Rutherford, E.</i> Radio-activity (Review).....	33, 208
— Radioactive transformations (Review).....	37, 661
— and <i>Levin, M.</i> Radioaktive Umwandlungen (Review).....	38, 749
— and <i>Finkelstein, B.</i> Radiumnormalmasse (Review) 46,	648
<i>Ryland, G.</i> A contribution to the study of liquid mixtures of constant boiling point.....	22, 384
<i>Ryn, J. J. L. van.</i> On the composition of Dutch butter (Review).....	27, 240
<i>SABIN, A. H.</i> The industrial and artistic technology of paint and varnish (Review).....	33, 331
<i>Sackur, O.</i> Die chemische Affinität und ihre Messung (Review).....	41, 81
— See <i>Abegg, R., Arrhenius, S.</i>	
<i>Sadtler, S. P.</i> A handbook of industrial organic chemistry, 3rd ed. (Review).....	25, 169

- Sadtler, S. S.* See *Davis, W. A.*
- Salkowski, E.* and *Orndorff, W. R.* A laboratory manual of physiological and pathological chemistry (Review) 32, 184
- Sanders, W. W.* See *Norris, J. F.*
- Savoia, U.* Metallografia (Review)..... 43, 389
- Saxton, B.* See *Garner, J. B.*
- Schaefer, G. L.* A new test for cocaine (Note)..... 22, 86
- Scheithauer, W.* Die Schmelteere (Review)..... 46, 416
- Schenck, R.* Physikalische Chemie der Metalle (Review). 43, 389
- Schenk, H.* See *Merck, E.*
- Schimpf, H. W.* A text-book of volumetric analysis (Review) ..3rd ed., 21, 98; 4th ed., 31, 192; 5th ed., 43, 184
- Schlesinger, H. I.* Studies in catalysis: VI. The catalysis of imidoesters..... 39, 719
- Schlötter, M.* Ueber die elektrolytische Gewinnung von Brom und Iod (Review)..... 38, 657
- Galvanostegie, 1ter Teil (Review)..... 47, 356
- Schlatterbeck, J. O.* *Adlumia cirrhosa*—a new protopine-bearing plant..... 24, 249
- Schmidt, E.* Ausführliches Lehrbuch der pharmazeutischen Chemie, 5te Aufl. (Review)..... 1ter Band, 1te Abt., 37, 419; 2ter Band, 1te Abt., 44, 564
- Schmidt, G. C.* Die Kathodenstrahlen (Review)..... 32, 293; 2te Aufl., 38, 657
- Schmidt, J.* Die Anwendung der Hydrazine in der analytischen Chemie (Review)..... 39, 432
- Synthetisch-organische Chemie der Neuzeit (Review)..... 41, 77
- Jahrbuch der organischen Chemie, VI (Review). 50, 52
- Schmidt, M. R.* The basicity of acids as determined by their conductivities..... 40, 305
- and *Jones, H. C.* Conductivity and viscosity in mixed solvents containing glycerol. XI..... 42, 37
- Schnabel, C.* and *Louis, H.* Handbook of metallurgy (Review)..... Vol. I, 35, 473; Vol. II, 38, 379
- Schneeberger, P.* See *Gilpin, J. E.*
- Schober, W. B.* and *Bowers, H. L.* The action of sulphuric acid on phenetol..... 25, 69
- Propanetrisulphonic acid (preliminary paper).... 32, 165
- See *Gattermann, L.*
- Schoch, E. P.* The red and yellow mercuric oxides and the mercuric oxychlorides..... 29, 319
- The electromotive force of nickel and the effect of occluded hydrogen..... 41, 208
- The behavior of the nickel anode and the phenomena of passivity..... 41, 232

- Scholes, S. R.* See *Wheeler, H. L.*
- Scholz, H. A.* See *Walton, Jr., J. H.*
- Schorlemmer, C.* See *Roscoe, H. E.*
- Schortemeyer, F. H.* See *North, H.*
- Schroetter, G.* See *Richter, V. von.*
- Schryver, S. B.* Chemistry of the albumens (Review).... 36, 417
 — The general characters of the proteins (Review). 43, 183
- Schwalbe, C.* Benzoltabellen (Review)..... 30, 443
- Schwalbe, C. G.* Die Chemie der Cellulose (Review)....
 1te Hälfte, 45, 218; 2te Hälfte, 48, 192
- Scott, W. W.* Qualitative chemical analysis (Review)....
 46, 314; 2nd ed., 50, 473
- Scudder, H.* Identification of organic acids by their
 toluides..... 29, 511
 — See *Mulliken, S. P.*
- Segerblom, W.* Laboratory manual of qualitative analysis
 (Review)..... 41, 161
 — Tables of properties of over fifteen hundred com-
 mon inorganic substances (Review)..... 42, 476
 — First year chemistry (Review)..... 44, 303
- Seidell, A.* Solubility of mixtures of sodium sulphate and
 sodium chloride..... 27, 52
 — Solubilities of inorganic and organic substances
 (Review)..... 38, 750
 — A new bromine method for the determination
 of thymol, salicylates and similar compounds.... 47, 508
 — Solubility and distribution coefficients of thymol. 48, 453
- Seitter, E.* See *Vanino, L.*
- Sellers, J. F.* An elementary treatise on qualitative
 chemical analysis (Review).... 26, 208; 2nd ed., 44, 112
- Sénéchal, A.* See *Urbain, G.*
- Senter, G.* Outlines of physical chemistry (Review).... 43, 183
 — A text-book of inorganic chemistry (Review).... 49, 263
- Sexton, A. H.* See *Rhead, E. L.*
- Shadinger, G. H.* See *Acree, S. F.*
- Shaeffer, E. J.* and *Jones, H. C.* A study of the conduc-
 tivity, dissociation and temperature coefficients of
 conductivity of certain inorganic salts in aqueous
 solution, as conditioned by temperature, dilution,
 hydration and hydrolysis..... 49, 207
 — See *Guy, J. S.*
- Shaffer, P. A.* See *Jackson, C. L.*
- Shaw, L. I.* See *Cooper, H. C.*
- Shedd, O. M.* See *Kastle, J. H.*
- Shepard, N. A.* See *Johnson, T. B.*
- Shepherd, J. W.* See *Noyes, W. A.*

- Shepherd, L.* See *Mabery, C. F.*
- Sherman, H. C.* Methods of organic analysis (Review)... 35, 193
- Shinn, F. L. and Wells, H. L.* On double and triple thio-
cyanates of caesium, cobalt, and silver..... 29, 474
- Shreve, R. N.* See *Clarke, L.*
- Sidersky, D.* Les densités des solutions sucrées à diffé-
rentes températures (Review)..... 42, 559
- Siebert, G.* See *Thomson, J. J.*
- Sieplein, O. J.* See *Mabery, C. F.*
- Singer, S. K.* See *Richards, T. W.*
- Sinnatt, F. S.* See *Radcliffe, L. G.*
- Skilling, W. T.* The dissociating power of hydrogen sul-
phide (Note)..... 26, 383
- Slagle, E. A.* See *Acree, S. F.*
- Slimmer, M. and Stieglitz, J.* The constitution of pur-
puric acid and of murexide..... 31, 661
- Slosson, E. E.* On acylhalogenamine derivatives and the
Beckmann rearrangement..... 29, 289
- Smeaton, W. G.* See *Böttger, W.*
- Smith, A.* On the phenylhydrazones of benzoin..... 22, 198
- A laboratory outline of general chemistry (Re-
view)..... 22, 243
- On potassium cyanide as a condensing agent.... 22, 249
- and *Hall, E. H.* The teaching of chemistry and
physics in secondary schools (Review)..... 30, 439
- *Haber, F. and Stöcker, M.* Praktische Uebungen
zur Einführung in die Chemie (Review)..... 31, 446
- Introduction to general inorganic chemistry (Re-
view)..... 36, 217
- and *Hale, W. J.* A laboratory outline of general
chemistry, 3rd ed. (Review)..... 39, 310
- General chemistry for colleges (Review)..... 42, 98
- and *Stern, E.* Einführung in die allgemeine und
anorganische Chemie (Review)..... 42, 560
- See *Hoff, J. H. van't.*
- Smith, Albert W.* The year's advance in technical chem-
istry (Report)..... 23, 520
- Smith, Arthur W.* See *Jones, H. C.*
- Smith, C. R.* See *Kastle, J. H.*
- Smith, E. F. and Keller, H. F.* Experiments for students
in general chemistry (Review).....
.....4th ed., 26, 94; 5th ed., 33, 431
- Electro-analysis (Review).....
.....4th ed., 39, 663; 5th ed., 47, 453
- See *Richter, V. von.*

<i>Smith, G. McP.</i> On the constitution of amalgams (preliminary communication).....	36,	124
— On reversible metallic displacements in aqueous solutions.....	37,	506
— On amalgams: the hydrargyrides of the alkali and alkali earth metals.....	38,	671
— See <i>Noyes, W. A.</i>		
<i>Smith, H. C.</i> Lecture-notes on chemistry for dental students (Review).....	37,	202
<i>Smith, H. D.</i> See <i>Michael, A.</i>		
<i>Smith, L. D. and Jones, H. C.</i> Conductivity, temperature coefficients of conductivity, dissociation and dissociation constants of certain organic acids between 0° and 65°. XIV.....	50,	1
<i>Smith, P. S.</i> See <i>Jackson, C. L.</i>		
<i>Snell, J. F.</i> See <i>Evans, T.</i>		
<i>Snyder, H.</i> The chemistry of soils and fertilizers (Review).....	22, 495; 2nd ed., 35,	291
<i>Soch, C. A. and Oenslager, G.</i> On the condensation of nitromalonic aldehyde with certain ketones and ketone-acids.....	24,	1
<i>Soddy, F. and Waller, C. H.</i> Ion (Review).....	42,	181
— The chemistry of the radio elements (Review).....	48,	101
— The interpretation of radium, 3rd ed. (Review).....	49,	528
<i>Sommerfeldt, E.</i> Physikalische Krystallographie vom Standpunkt der Strukturtheorie (Review).....	38,	508
<i>Sopozhnikoff, A. V.</i> See <i>Jones, H. C.</i>		
<i>Speh, C. F.</i> See <i>Johnson, T. B.</i>		
<i>Spencer, G. L.</i> A handbook for cane sugar manufacturers and their chemists (Review).....	36,	111
<i>Spencer, J. F.</i> An experimental course of physical chemistry (Review).....Part I, 46, 649; Part II,	48,	195
<i>Speyer, R.</i> The constitution of tribromphenolbromide. The preparation and properties of tribromphenylsulphonate. The conversion of tribromphenolbromide into <i>m</i> -dibromquinone.....	27,	40
<i>Spiegel, L.</i> Der Stickstoff and seine wichtigsten Verbindungen (Review).....	30,	352
<i>Spoehr, H. A.</i> On the behavior of the ordinary hexoses towards hydrogen peroxide in the presence of alkaline hydroxides, as well as of various iron salts.	43,	227
<i>Springer, Jr., A. and Jones, H. C.</i> A study of the conductivity and dissociation of certain organic acids in aqueous solution at different temperatures.....	48,	411
<i>Stähler, A.</i> Handbuch der Arbeitsmethoden in der anorganischen Chemie, 1ter Band (Review).....	50,	492

- Stafford, O. F.* See *Franklin, E. C.*
- Standage, H. C.* Decoration of metal, wood, glass, etc.
(Review)..... 41, 444
- Stanford, R. V.* See *Bauer, H.*
- Stansbie, J. H.* Introduction to metallurgical chemistry,
2nd ed. (Review)..... 38, 748
- Starling, F. A.* See *Bunge, G.*
- Statiropoulos, J. G.* See *Wheeler, H. L.*
- Stelzner, R.* Literatur-Register der organischen Chemie,
1910-1911 (Review)..... 50, 254
- Stephenson, H. H.* Who's who in science, international,
1913 (Review)..... 50, 133
- Stern, E.* See *Smith, A.*
- Stern, R.* See *Hughes, A. M.*
- Stevens, H. P.* See *Chattaway, F. D.*
- Stewart, A. W.* Stereochemistry (Review)..... 40, 574
— Recent advances in physical and inorganic
chemistry (Review)..... 44, 206; 2nd ed., 50, 480
- Stieglitz, J.* On the constitution of the salts of imido
ethers and other carbimide derivatives..... 21, 101
— Notes on lecture experiments to illustrate equi-
librium and dissociation..... 23, 404
— On the "Beckmann rearrangement." II..... 29, 49
— and *Earle, R. B.* The "Beckmann rearrange-
ment."..... III, 30, 399; IV, 30, 412
— and *Derby, I. H.* A study of hydrolysis by con-
ductivity methods..... 31, 449
— and *Upson, H. T.* The molecular rearrangement
of aminophenyl alkyl carbonates..... 31, 458
— Note on the article entitled "Studies in catal-
ysis" by S. F. Acree..... 38, 743
— Studies in catalysis:
I. The catalysis of esters and of imido-esters by
acids..... 39, 29
II. The catalysis of imido esters..... 39, 166
III. The theories of esterification and saponifica-
tion..... 39, 402
— and *Acree, S. F.* On the theory of indicators and
the reactions of phthaleins and their salts..... 39, 528
— The theory of indicators..... 39, 651
— The "syn" and "anti" stereoisomerism of nitrogen
compounds..... 40, 36
— The elements of qualitative chemical analysis
(Review)..... 47, 453
— See *Slimmer, M.*

<i>Stiehl, W.</i> Contributions to our knowledge of the oil of lemon-grass.....	21,	67
<i>Stiles, S.</i> The relations between chemical constitution and some physical properties (Review).....	45,	611
<i>Stillman, J. M.</i> and <i>O'Neill, E. C.</i> On the acids of the fat of the California bay tree.....	28,	327
<i>Stillman, T. B.</i> Engineering chemistry (Review).....		
..... 2nd ed.,	25, 517; 3rd ed., 35, 370; 4th ed.,	45,
		415
<i>Stine, C. M.</i> On a method for determining the specific heat of solutions; contribution to the study of hydrates (Report).....	37,	112
— See <i>Jones, H. C.</i>		
<i>Stoddard, J. T.</i> Quantitative experiments in general chemistry (Review).....	42,	373
— Introduction to general chemistry (Review)....	46,	213
<i>Stoddard, W. B.</i> A further study of the products formed by the action of heat on <i>p</i> -sulphamidobenzoic acid.	47,	1
<i>Stöcker, M.</i> See <i>Smith, A.</i>		
<i>Stone, C. H.</i> Practical testing of gas meters (Review)...	43,	186
<i>Storer, F. H.</i> See <i>Eliot, C. W.</i>		
<i>Storey, W. F.</i> See <i>Johnson, T. B.</i>		
<i>Strong, W. W.</i> Experiments on the radioactivity of erbium, potassium and rubidium compounds.....	42,	147
— Recent progress in our knowledge of the radioactive elements (Report).....	42,	541
— Chemical constitution and the absorption of light (Report).....	44,	85
— The relation between electrification and chemical reactions and the properties of condensation nuclei (Report).....	50,	100
— The oxidation of nitrogen and oxygen.....	50,	204
— High tension electrolysis: a method of measuring high voltage currents.....	50,	213
— See <i>Jones, H. C.</i>		
<i>Strutt, R. J.</i> The Becquerel rays and the properties of radium (Review).....	33, 609; 2nd ed.,	36,
		617
<i>Stubbs, M. B.</i> Nitro- <i>o</i> -sulphobenzoic acid and some of its derivatives.....	50,	193
<i>Sugiura, K.</i> See <i>Kober, P. A.</i>		
<i>Sullivan, A. L.</i> and <i>Crampton, C. A.</i> The crystalline appearance of calcium tartrate as a distinctive and delicate test for the presence of tartaric acid or tartrates.....	36,	419
<i>Sullivan, E. C.</i> See <i>Prescott, A. B.</i>		
<i>Sutton, F.</i> A systematic handbook of volumetric analysis, 9th ed. (Review).....	33,	328

- Sutton, F. Sutton, W. L. and Johnson, A. E.* A systematic handbook of volumetric analysis, 10th ed. (Review)..... 47, 87
- Sutton, W. L.* See *Sutton, F.*
- Svedberg, T.* Die Existenz der Moleküle (Review)..... 49, 425
- Swarts, F.* Cours de chimie organique (Review)..... 37, 206; 2me éd., 50, 480
- Swartz, C. K.* A development of the atomic theory which correlates chemical and crystalline structure and leads to a demonstration of the nature of valency (Report)..... 37, 638
- Relation between crystalline form and chemical constitution (Report)..... 42, 158
- Sylvester, J. P.* See *Hill, H. B.*
- Syme, W. A.* See *Acree, S. F.*
- TAKANO, S.** See *Mabery, C. F.*
- Talbot, H. P.* Johannes Wislicenus (Obituary)..... 29, 174
- and *Blanchard, A. A.* The electrolytic dissociation theory (Review)..... 35, 370
- An introductory course of quantitative chemical analysis, 5th ed. (Review)..... 41, 448
- Tankard, A. R.* See *Allen, A. H.*
- Taveau, R. deM.* See *Noyes, W. A.*
- Taylor, E. E.* See *Horn, D. W.*
- Taylor, L. S.* Observations upon the boiling points of some organic liquids: a method of determining the molecular weights of pure liquids and solids (Report)..... 32, 85
- See *Morse, H. N.*
- Teeple, J. E.* See *Orndorff, W. R.*
- Thebaud, E. D.* See *Orndorff, W. R.*
- Thiele, F. C.* Texas petroleum..... 22, 489
- Thole, F. B.* A second year course of organic chemistry (Review)..... 49, 338
- Thomas, V. and Gautier, D.* Notions fondamentales d'analyse qualitative (Review)..... 48, 264
- Thompson, M. deK.* Applied electrochemistry (Review) 47, 357
- Thoms, H.* Ueber Mohnbau und Opiumgewinnung (Review) 38, 379
- Thomsen, J. and Burke, K. A.* Thermochemistry (Review)..... 40, 315
- Thomson, J. J. and Siebert, G.* Elektrizität und Materie (Review)..... 34, 259
- and *Fae, G.* Elettricità e materia (Review).... 34, 587
- Some further applications of the method of positive rays (Report) 50, 243

<i>Thorpe, F. H.</i> Outlines of industrial chemistry (Review).	21, 181;	
new ed., 23, 268; 2nd ed., 35, 96; reprint of 2nd ed., 38,		656
<i>Thorpe, E.</i> A dictionary of applied chemistry, revised ed. (Review).....	Vol. I, 48, 191; Vol. II, 48, 259; Vol. III, 49, 257; Vol. IV, 50,	181
<i>Thorpe, J. F.</i> See <i>Cain, J. C.</i>		
<i>Thresh, J. C.</i> Water and water supplies.....	23,	268
—— The examination of waters and water supplies, 2nd ed. (Review).....	50,	487
<i>Tietjens, L. and Roemer, H.</i> Laboratoriumsbuch für die Kaliindustrie (Review).....	47,	87
<i>Tilden, W. A.</i> A short history of the progress of scien- tific chemistry (Review).....	23,	271
<i>Tillman, S. E.</i> Descriptive general chemistry, 2nd ed. (Review).....	23,	274
—— A text-book of important minerals and rocks (Review).....	25,	249
<i>Tilt, J.</i> See <i>Evans, P. N.</i>		
<i>Tingle, A.</i> The reactions of aniline and hydroxylamine with hydroxy- and unsaturated compounds.....	24,	45
—— A new synthesis of secondary amines.....	24,	276
—— The synthesis of amines by the use of alkyl sali- cylates.....	25,	144
—— Phenylisoxazolone.....	34,	471
—— See <i>Tingle, J. B.</i>		
<i>Tingle, J. B. and Tingle, A.</i> The action of ethylic oxalate on camphor, IV.....	21,	238
—— and <i>Tingle, A.</i> Interaction of ethylic oxalate and camphor. V. Condensation compounds of amines and camphoroxalic acid.....	23,	214
—— and <i>O'Byrne, L.</i> Action of phenols on ethylic oxalate.....	25,	496
—— and <i>Hoffman, Jr., W. E.</i> Camphoroxalic deriva- tives. VII. Condensation compounds of camphor- oxalic acid and amines.....	34,	217
—— The preparation of benzonitrile (Note).....	35,	87
—— Grignard's reaction (Report).....	35,	90
—— The stereoisomerism of substituted ammonium compounds (Report).....	35,	189
—— Preparation of pure ethyl alcohol (Report).....	35,	286
—— Esterification (Report).....	35,	368
—— The action of ozone on organic compounds (Re- port).....	35,	463
—— A new oxide of carbon, C ₃ O ₂ . Carbon suboxide (Report).....	35,	534

<i>Tingle, J. B.</i> Amino acids, polypeptides and proteids (Report).....	35,	535
— Tautomerism and steric hindrance (Report)....	36,	213
— and <i>Robinson, C. J.</i> A continuation of the study of amines on camphoroxalic acid.....	36,	223
— and <i>Blanck, F. C.</i> The nitration of aniline and certain of its derivatives. I.....	36,	605
— and <i>Williams, L. F.</i> Acyl derivatives of <i>o</i> - and <i>p</i> -aminophenol.....	37,	51
— Glyoxal (Report).....	37,	415
— and <i>Gorsline, E. E.</i> Influence of solvents in the Claisen condensation; catalytic action of ether and of tertiary bases in this reaction and also in the formation of the Grignard reagent (preliminary communication).....	37,	483
— and <i>Cram, M. P.</i> Preparation of the aniline derivatives of succinic acid and of phthalic acid....	37,	596
— and <i>Lovelace, B. F.</i> Intramolecular condensation of phthalanilic acid and of certain allied compounds. II.....	38,	642
— and <i>Williams, L. F.</i> Camphoroxalic acid derivatives:		
XI. Study of the action of certain secondary amines on camphoroxalic acid.....	39,	105
XII. Study of the action of primary and tertiary amines on camphoroxalic acid.....	39,	277
— and <i>Gorsline, E. E.</i> Investigation of the Claisen condensation. II. A contribution towards the elucidation of the mechanism of the reaction....	40,	46
— See <i>Landauer, J., Lassar-Cohn, Meyer, H.</i>		
<i>Toch, M.</i> Materials for permanent painting (Review)..	48,	262
<i>Torrey, H. A.</i> On the action of ethylene dibromide on <i>p</i> -nitrosodimethylaniline.....	28,	107
— and <i>Hardenbergh, H.</i> On the dissociation of phenoquinone and quinhydrone.....	33,	167
— The action of ethylenedibromide on <i>p</i> -nitrosodialkylanilines. II.....	34,	475
— and <i>Gibson, J. A.</i> On the addition products of <i>p</i> -nitrosodimethylaniline with certain phenols....	35,	246
— and <i>Zanetti, J. E.</i> On ethyl pyromucylacetate (preliminary paper).....	36,	539
— and <i>Zanetti, J. E.</i> Furoylacetic ester and the furylpyrazolones. III.....	44,	391
<i>Torrey, Jr., J. and Black, O. F.</i> On some derivatives of α -nitro- β -dinitropropionic aldehyde.....	24,	452
— See <i>Hill, H. B.</i>		

<i>Tower, O. F.</i> The conductivity of liquids (Review).....	35,	548
— A course of qualitative chemical analysis (Review).....	45, 414; 2nd ed., 46,	215
<i>Travers, M. W.</i> The experimental study of gases (Review).....	27,	420
— See <i>Ramsay, W.</i>		
<i>Treadwell, F. P. and Hall, W. T.</i> Analytical chemistry (Review).....		
Vol. I, 30, 244; Vol. II, 33, 211; 2nd ed., Vol. II, 45,		413
<i>True, A. C.</i> Wilbur Olin Atwater (Obituary).....	38,	652
<i>Trumbull, R. S.</i> See <i>Alway, F. J.</i>		
<i>Tschirch, A.</i> Die Harze und die Harzebehälter, 2te Aufl. (Review).....	37,	662
<i>Turnbull, S. K.</i> See <i>Ostwald, Wilhelm.</i>		
<i>Turner, B. B.</i> Ionium, the parent of radium (Report)...	39,	653
— The limiting conductivity and ionization of alcoholic solutions.....	40,	558
— See <i>Marckwald, W.</i>		
<i>Turner, H. J.</i> Dry method for the generation of oxygen from sodium peroxide (Note).....	37,	106
— See <i>Remsen, I.</i>		
<i>Twieg, W. C.</i> See <i>Norris, J. F.</i>		
<i>Twining, R. H.</i> See <i>White, G. F.</i>		
<i>Twiss, D. F.</i> See <i>Price, T. S.</i>		
UHLER, H. S. See <i>Jones, H. C.</i>		
<i>Ulke, T. and Engelhardt, V.</i> Die elektrolytische Raffination des Kupfers (Review).....	33,	98
— Electrolytic copper refining (Review).....	33,	98
<i>Unger, M. S. H.</i> Review questions and problems in chemistry (Review).....	50,	58
<i>Upson, F. W.</i> On the action of normal barium hydroxide on <i>d</i> -glucose and <i>d</i> -galactose.....	45,	458
<i>Upson, H. T.</i> The molecular rearrangement of aminophenylalkyl carbonates.....	32,	13
— See <i>Stieglitz, J.</i>		
<i>Urbain, G.</i> Introduction à l'étude de la spectrochimie (Review).....	47,	85
— and <i>Sénéchal, A.</i> Introduction à la chimie des complexes (Review).....	50,	489
<i>Uslar, M. von and Ertlwein, G.</i> Cyanid-Prozesse zur Goldgewinnung (Review).....	32,	91
VAIL, C. E. See <i>Alway, F. J., Clark, L. L.</i>		
Valentine, W. See <i>Wheeler, H. L.</i>		
Van Arsdale, M. B. See <i>Woodhull, J. F.</i>		

- Vanderkleed, C. E.* See *Evans, P. N.*
- Vanino, L. and Seitter, E.* Der Formaldehyd (Review)... 26, 292
- Van Slyke, D. D.* See *Van Slyke, L. L.*
- Van Slyke, L. L. and Hart, E. B.* A study of some of the salts formed by casein and paracasein with acids: their relation to American cheddar cheese..... 28, 411
- and *Hart, E. B.* Methods for the estimation of the proteolytic compounds contained in cheese and milk..... 29, 150
- and *Hart, E. B.* A contribution to the chemistry of American cheddar cheese..... 29, 371
- and *Hart, E. B.* The relation of carbon dioxide to proteolysis in the ripening of cheddar cheese.... 30, 1
- and *Hart, E. B.* Chemical changes in cheese-ripening as affected by different conditions..... 31, 45
- and *Hart, E. B.* Chemical changes in the souring of milk..... 32, 145
- and *Hart, E. B.* A study of the artificial digestion of some compounds of casein and paracasein contained in cottage and cheddar cheese..... 32, 154
- and *Hart, E. B.* Casein and paracasein in some of their relations to bases and acids..... 33, 461
- and *Van Slyke, D. D.* The action of dilute acids upon casein when no soluble compounds are formed 38, 383
- and *Van Slyke, D. D.* The hydrolysis of the sodium salts of casein..... 38, 619
- Van Wagener, E. M.* See *Horn, D. W.*
- Vaughan, V. C. and Novy, F. G.* Cellular toxines, 4th ed. (Review)..... 29, 286
- Veazey, W. R.* See *Jones, H. C.*
- Venable, E. P. and Wheeler, A. S.* A course in qualitative chemical analysis, 4th ed. (Review)..... 30, 84
- The study of the atom (Review)..... 33, 516
- Venable, W. M.* Methods and devices for the bacterial treatment of sewage (Review)..... 40, 576
- Viele, F. W.* See *Alway, F. J.*
- Villavecchia, V.* Dizionario di merceologia, Vol. I, 3a ed. (Review)..... 46, 216
- Vogel, H. W. and König, E.* Photochemie, 5te Aufl. (Review)..... 40, 576
- Vogel, J. H.* Das Acetylen (Review)..... 46, 115
- Voigtländer, F.* See *Baumert, G., Dennstedt, M.*
- Vorisek, A.* See *Coblentz, V.*
- WAALS, J. D. VAN DER.** Die Zustandsgleichung (Review)..... 47, 528

<i>Waddell, J.</i> The arithmetic of chemistry (Review).....	23,	275
— Quantitative analysis in practice (Review).....	50,	472
<i>Wadmore, J. M.</i> Elementary chemical theory (Review)	49,	264
<i>Walden, P.</i> Wilhelm Ostwald (Review).....	32,	90
— Die Lösungstheorien in ihrer geschichtlicher Aufeinanderfolge (Review).....	45,	538
<i>Walden, P. T.</i> The acid oxalates of ammonium.....	34,	147
<i>Waldo, L.</i> See <i>Minet, A.</i>		
<i>Walker, A. B.</i> See <i>Alway, F. J.</i>		
<i>Walker, A. J.</i> See <i>Holleman, A. F.</i>		
<i>Walker, C. F.</i> See <i>Gooch, F. A.</i>		
<i>Walker, J.</i> Introduction to physical chemistry (Review)	23,	269
<i>Wallach, O.</i> Briefwechsel zwischen J. Berzelius and F. Wöhler (Review).....	30,	433
<i>Wallbridge, W. K.</i> Caesium-ferric thiocyanate.....	28,	256
— and <i>Wells, H. L.</i> The caesium-lead and potas- sium-lead thiocyanates.....	28,	258
— On a double salt of potassium and barium nitrates.....	30,	154
<i>Walter, C. H.</i> See <i>Soddy, F.</i>		
<i>Walton, Jr., J. H.</i> and <i>Scholz, H. A.</i> The decomposition of certain minerals and industrial products by means of sodium peroxide and metallic sulphides.....	39,	771
— See <i>Lincoln, A. T.</i>		
<i>Ware, L. S.</i> Beet sugar manufacture and refining (Re- view).....	Vol. I, 35, 377; Vol. II, 39,	311
<i>Warren, R. C.</i> See <i>Noyes, W. A.</i>		
<i>Warren, W. H.</i> See <i>Autenrieth, W.</i>		
<i>Washington, H. S.</i> Manual of the chemical analysis of rocks (Review).....	33, 435; 2nd ed., 45,	90
— See <i>Cross, W.</i>		
<i>Wassermann, A.</i> and <i>Bolduan, C.</i> Immune sera (Review)	32,	294
<i>Waters, C. E.</i> The wax of the <i>Bacillariaceae</i> and its rela- tion to petroleum (Note).....	23,	176
— On krypton (Note).....	24,	95
— Radio-lead (Note).....	27,	74
— On the existence of ammonium (Note).....	27,	77
— A simple apparatus for demonstrating the manu- facture of water-gas.....	27,	139
— Algal wax and its relationship to petroleum (Re- port).....	28,	78
— The action of ozone on carbon monoxide.....	30,	50
— The Grignard reaction (Report).....	33,	304
— A study of the products formed by the action of heat on <i>p</i> -sulphamido- <i>m</i> -toluic acid.....	47,	333
— See <i>Falk, K. G.</i> , <i>Noyes, W. A.</i>		

- Weaver, E. M. Notes on military explosives (Review)... 37, 423
- Webb. See Evans' Sons.
- Weedon, W. S. and Doughty, H. W. Diphenylsulfone-o-carboxylic acid and related compounds..... 33, 386
- Weichelt, W. Jahrbuch der Chemie. General Register über die Jahrgänge 1891 bis 1900 (Review)..... 31, 448
- Weigle, O. M. See Pearce, J. N.
- Weinland, R. Anleitung für das Praktikum der Massanalyse, 3te Aufl. (Review)..... 47, 183
- Weinschenk, E. Anleitung zum Gebrauch des Polarisationsmikroskops (Review)..... 36, 526
- Weissberg, J. See Engler, C.
- Wells, H. L. On the purification of caesium material.... 26, 265
- and Metzger, F. J. On a salt of quadrivalent antimony..... 26, 268
- and Metzger, F. J. On the acid nitrates..... 26, 271
- Investigations on double nitrates..... 26, 275
- and Beardsley, H. P. Caesium double nitrates.. 26, 275
- Caesium periodate and iodate-periodate..... 26, 278
- Generalizations on double halogen salts..... 26, 389
- On some double and triple thiocyanates..... 28, 245
- The caesium-silver thiocyanates..... 28, 263
- The caesium-zinc and silver-zinc thiocyanates.. 28, 268
- and Merriam, H. F. Barium-silver, strontium-silver and calcium-silver thiocyanates..... 28, 269
- Caesium-thallos thiocyanate, $\text{CsTl}_4(\text{SCN})_3$ 28, 270
- Caesium-cuprous-barium thiocyanate, $\text{Cs}_2\text{BaCu}_2(\text{SCN})_7$ 28, 273
- The caesium-silver-zinc thiocyanates..... 28, 278
- Potassium-silver-barium thiocyanate..... 28, 283
- On the double and triple thiocyanates of caesium, cadmium and silver..... 30, 144
- On rubidium-barium-silver thiocyanates..... 30, 184
- The composition of double halogen salts..... 31, 395
- Tables for chemical calculations (Review)..... 31, 590
- A text-book of chemical arithmetic (Review).... 35, 96
- Concerning potassium β -ferricyanide..... 49, 205
- See Hupel, O. G., Leavenworth, C. S., Mathewson, C. H., Roberts, R. T., Shinn, F. L., Wallbridge, W. K.
- Wells, R. C. The estimation of opalescent silver chloride precipitates..... 35, 99
- Note on "the estimation of opalescent silver chloride precipitates"..... 35, 508
- See Richards, T. W.

<i>Werner, A.</i> Neuere Anschauungen auf dem Gebiete der anorganischen Chemie (Review).....	35,	295
— and <i>Hedley, E. P.</i> New ideas on inorganic chemistry (Review).....	46,	530
— Molecularly asymmetric metallic compounds (Report).....	49,	314
— Neuere Anschauungen auf dem Gebiete der anorganischen Chemie, 3te Aufl. (Review).....	50,	489
<i>West, A. P. and Jones, H. C.</i> The conductivity, dissociation and temperature coefficients of conductivity at 35°, 50° and 65° of aqueous solutions of a number of salts.....	44,	508
— See <i>Jones, H. C.</i>		
<i>Wester, D. H.</i> Anleitung zur Darstellung phytochemischer Uebungspräparate (Review).....	50,	490
<i>Weston, F. E.</i> A scheme for the detection of the more common classes of organic compounds (Review)...	34,	168
<i>Wheeler, A. S.</i> See <i>Hill, H. B., Venable, E. P.</i>		
<i>Wheeler, H. L. and Johnson, T. B.</i> On the rearrangement of imidoesters.....	21,	185
— and <i>Barnes, B.</i> On the rearrangement of the thioncarbamic esters.....	22,	141
— and <i>Valentine, W.</i> Researches on substitution. II. The action of bromine on <i>m</i> -chlor-, <i>m</i> -brom- and <i>m</i> -iodanilines.....	22,	266
— On the rearrangement of imidoesters. II.....	23,	135
— Researches on the sodium salts of the amides...	23,	453
— and <i>Barnes, B.</i> On the molecular rearrangement of the thioncarbamic, thioncarbanilic and thioncarbazinic esters: β -alkyl- α, μ -diketotetrahydrothiazoles	24,	60
— and <i>Johnson, T. B.</i> On the behavior of acylthioncarbamic esters with alkali iodides and amines: benzoylimidothiocarbonic esters, acyclic benzoylpseudoureas and benzoylureas.....	24,	189
— and <i>Dustin, G. K.</i> On the molecular rearrangement of disubstituted thioncarbamic esters: phenylimidothiocarbonic acid derivatives and thiosemicarbazidic esters.....	24,	424
— and <i>Johnson, T. B.</i> On acetyl and benzoylimidodithiocarbonic esters.....	26,	185
— Researches on thiocyanates and isothiocyanates	26,	345
— and <i>Johnson, T. B.</i> On some acetyl and benzoylpseudothiureas.....	26,	408
— and <i>Johnson, T. B.</i> On benzoylbenzylurea, benzoyl- <i>p</i> -tolylurea and the corresponding pseudoeethylureas: a correction.....	27,	218

- Wheeler, H. L. and Beardsley, A. P. On the action of phenylhydrazine on acylthiocarbamic and acylimidothiocarbonic esters: pyrro- α,β' -diazole derivatives..... 27, 257
- On the molecular rearrangement of unsymmetrical acylthioureas and acylpseudothioureas to isomeric symmetrical derivatives..... 27, 270
- and Johnson, T. B. On the molecular rearrangement of thiocyanacetanilides into labile pseudothiohydantoins; and on the molecular rearrangement of the latter into stable isomers..... 28, 121
- and Beardsley, A. P. On the action of phenylhydrazine on benzoylpseudothioureas: 1,5-diphenyl-3-aminopyrro- α,β' -diazole derivatives..... 29, 73
- and Merriam, H. F. On some condensation-products of the pseudothioureas: synthesis of uracil, thymine, and similar compounds..... 29, 478
- and Johnson, T. B. Syntheses of aminooxypyrimidines having the composition of cytosine: 2-amino-6-oxypyrimidine and 2-oxy-6-aminopyrimidine..... 29, 492
- and Johnson, T. B. On cytosine or 2-oxy-6-aminopyrimidine from tritico-nucleic acid..... 29, 505
- and Johnson, T. B. On the molecular rearrangement of imidoacid anhydrides..... 30, 24
- and Johnson, T. B. On isomerism in the amidine series: diphenylbenzenylaminoamidine and phenylbenzenylphenylaminoamidine..... 31, 577
- and Johnson, T. B. Researches on pyrimidine derivatives: V. 5-Methylcytosine..... 31, 591
- and Jamieson, G. S. Researches on pyrimidines: VII. 2-Oxy-4,6-diaminopyrimidine..... 32, 342
- and Jamieson, G. S. Synthesis of iodorgoic acid 33, 365
- and Bristol, H. S. Researches on pyrimidines: VIII. The structure of some substitution-products 33, 437
- and Bristol, H. S. Researches on pyrimidines: IX. Action of potassium thiocyanate upon some imide chlorides..... 33, 448
- and Statiropoulos, J. G. On some urazole and imidothiazoline derivatives..... 34, 117
- Johnson, T. B. and Johns, C. O. Researches on pyrimidines: XIX. Synthesis of uracil-5-carboxylic acid..... 37, 392
- Note on the synthesis of iodorgoic acid..... 38, 356
- Researches on pyrimidines: XXIII. Uracil-4-carboxylic acid..... 38, 358

<i>Wheeler, H. L. and Johns, C. O.</i> Researches on pyrimidines:	
XXVI. Synthesis of cytosine-5-carboxylic acid.	38, 594
— and <i>Johns, C. O.</i> Researches on pyrimidines:	
XXXVI. Synthesis of cytosine-5-carboxamide.	40, 233
— and <i>Clapp, S. H.</i> Researches on halogen amino acids: IV. 3,5-Dibromophenylalanine.	40, 337
V. <i>p</i> -Iodophenylalanine.	40, 458
— and <i>Liddle, L. M.</i> Researches on pyrimidines:	
XL. The thio derivatives of uracil and the preparation of uracil in quantity.	40, 547
— and <i>Johnson, T. B.</i> Researches on pyrimidines:	
XLIII. The preparation of 3-methyl- and 3-benzyl-uracil.	42, 30
— and <i>McFarland, D. F.</i> Researches on pyrimidines:	
XLIV. The preparation of 1,4-dimethyluracil and of the monobenzyl derivatives of 4-methyl-uracil.	42, 101
XLVII. The action of methyl iodide and of benzyl chloride upon 2-oxy-4-methyl-6-methyl-mercaptopyrimidine.	42, 431
— and <i>Liddle, L. M.</i> Researches on halogen amino acids:	
VI. Iodine derivatives of <i>p</i> -toluidine: 3,5-diiod-4-aminobenzoic acid.	42, 441
VII. Iodine derivatives of <i>o</i> -toluidine. The 3-iodaminobenzoic acids.	42, 498
— and <i>Johns, C. O.</i> Researches on the halogen amino acids: VIII. The position of the iodine atoms in diiodtyrosine (iodorgoic acid).	43, 11
— and <i>McFarland, D. F.</i> Researches on pyrimidines: XLIX. The thio derivatives of thymine and the preparation of thymine.	43, 19
— and <i>Johns, C. O.</i> On alkylation of aromatic amino acids: II. 5-Iodo-2-aminobenzoic acid and 3,5-diiodo-2-aminobenzoic acid.	43, 398
— and <i>Hoffman, C.</i> Alkylation of aromatic amino acids: III. Aminomethylbenzoic acids.	44, 113
— <i>Brautlecht, C. A., Hoffman, C. and Scholes, S. R.</i> On the action of iodine on <i>m</i> -toluidine.	44, 126
— and <i>Johns, C. O.</i> Alkylation of aromatic amino acids: IV. Nitramino and iodoamino acids.	44, 441
— <i>Brautlecht, C. A. and Hoffman, C.</i> On iodine derivatives of toluene.	44, 493
— and <i>Hoffman, C.</i> Note on aminomethylbenzoic acids.	44, 507

- Wheeler, H. L. and Hoffman, C.* On hydantoins: I. A synthesis of phenylalanine and of tyrosine. 45, 368
 — and *Hoffman, C.* Alkylation of aromatic amino acids: V. 3-Amino-2,4-dimethylbenzoic acid. 45, 436
 — and *Brautlecht, C. A.* On hydantoins: II. Aldehyde condensation products of phenylthiohydantoins 45, 446
 — *Nicolet, B. H. and Johnson, T. B.* On hydantoins: VI. The action of acylthioncarbamates, acyldithiocarbamates and acylimidothiocarbonates on α -amino acids. 2-Thiohydantoin. 46, 456
Wheeler, P. M. See *Calhane, D. F.*
Whetham, W. C. D. The recent development of physical science (Review). 34, 173
Whipple, G. C. The value of pure water (Review). 38, 508
White, A. H. Technical gas and fuel analysis (Review). .. 50, 493
White, F. S. See *Olsen, J. C.*
White, G. F. and Jones, H. C. The effect of temperature and dilution on the conductivity of organic acids in aqueous solution. 42, 520
 — and *Jones, H. C.* The conductivity and dissociation of organic acids in aqueous solution at different temperatures. 44, 159
 — and *Twining, R. H.* The viscosity of under-cooled water as measured in a new viscosimeter. ... 50, 380
 — See *Bingham, E. C.*
White, G. R. See *Hill, H. B.*
White, J. Exercises in qualitative chemistry (Review). ... 29, 514
 — Some double salts of lead. 31, 1
 — Reactions between lead chloride and lead acetate in acetic acid and water solutions. 35, 217
 — and *Nelson, J. M.* A study of the reactions involved in the formation of certain complex salts of lead 35, 227
 — See *Constam, E. J.*
Whitlock, T. C. and Barfield, C. E. Dehydration of crystals of sodium phosphate. 22, 214
Whitney, W. R. See *LeBlanc, M.*
Whittlesey, T. See *Dennis, L. M.*
Whymper, R. Cocoa and chocolate (Review). 48, 95
Wichelhaus, A. Sulfurieren, Alkalischemelze der Sulfosäuren, Esterifizieren (Review). 47, 353
Wiedemann, G. Die Lehre von der Elektrizität, Band IV, 2te Aufl. (Review). 22, 330
Wig, R. J. and Bates, P. H. Tests of the absorptive and permeable properties of Portland cement mortars and concretes (Review). 48, 263

<i>Wig, R. J.</i>	See <i>Bates, P. H.</i>		
<i>Wightman, E. P. and Jones, H. C.</i>	A study of the conductivity and dissociation of organic acids in aqueous solution between zero and thirty-five degrees.....	46,	56
— and <i>Jones, H. C.</i>	A study of the conductivity and dissociation of certain organic acids at 35°, 50° and 65°.....	48,	320
<i>Wilcox, B. B.</i>	See <i>Dehn, W. M.</i>		
<i>Wiley, H. W.</i>	Principles and practice of agricultural analysis (Review).....	Vol. I, 37, 659; Vol. II, 42,	99
<i>Willcox, O. W.</i>	On the reactions of ethyl chlorsulphonate	32,	446
<i>Williams, L. F.</i>	See <i>Tingle, J. B.</i>		
<i>Williams, R. P.</i>	Chemical exercises for classroom and home study (Review).....	30,	538
<i>Williamson, A. L.</i>	Papers on etherification and on the constitution of salts (Review).....	31,	192
<i>Wilson, F. B.</i>	See <i>Getman, F. H.</i>		
<i>Wilson, F. D.</i>	A comparative study of <i>o</i> -sulphaminebenzoic acid and <i>o</i> -carbaminebenzenesulphonic acid.	30,	353
<i>Wilson, F. J. and Heilbron, I. M.</i>	Chemical theory and calculations (Review).....	50,	132
<i>Wilson, J. H.</i>	Some concentration cells in methyl and ethyl alcohols.....	35,	78
<i>Wilson, R.</i>	See <i>Garner, J. B.</i>		
<i>Winkler, C. and Lunge, G.</i>	Handbook of technical gas-analysis, 2nd English ed. (Review).....	30,	540
<i>Winslow, C. E. A.</i>	Elements of applied microscopy (Review).....	34,	350
—	See <i>Prescott, S. C.</i>		
<i>Winston, J. H. C.</i>	Action of alcohols on the tetrazonium chlorides derived from benzidine and from <i>o</i> -tolidine	31,	119
<i>Winston, L. G.</i>	Electrical induction in chemical reactions	45,	547
— and <i>Jones, H. C.</i>	The conductivity, temperature coefficients of conductivity and dissociation of certain electrolytes in aqueous solution from 0° to 35°. Probable inductive action in solution, and evidence for the complexity of the ion.....	46,	368
<i>Winteler, F.</i>	Die Aluminium Industrie (Review).....	31,	192
<i>Winter, W. P.</i>	A new reducing-agent for the preparation of thiophenol.....	31,	572
<i>Witt, O. N.</i>	Das neue Technisch-Chemische Institut der Königlichen Technischen Hochschule zu Berlin (Review).....	36,	418
<i>Witthaus, R. A.</i>	The medical student's manual of chemistry, 5th ed. (Review).....	30,	350

<i>Woodhull, J. F. and Van Arsdale, M. B.</i> Chemical experiments (Review).....	22,	168
<i>Woodman, A. G.</i> See <i>Richards, E. H.</i>		
<i>Worden, E. C.</i> Nitrocellulose industry (Review).....	45,	616
<i>Worstell, R. A.</i> Direct nitration of the paraffins.....	21,	210
— Higher primary nitroparaffins.....	21,	218
— Action of sulphuric acid on nitroheptane.....	22,	164
<i>Wurtz, A.</i> Abhandlung über die Glykole (Review).....	44,	477
 <i>YAMAUCHI, Y.</i> Reactions of ozone with certain inorganic salts.....	49,	55
<i>Young, A. V. E.</i> The elementary principles of chemistry (Review).....	26,	386
<i>Young, S.</i> Fractional distillation (Review).....	31,	682
— Stoichiometry (Review).....	40,	314
 <i>ZACHARIAS, J.</i> Elektrochemische Umformer (Review)	47,	181
<i>Zanetti, J. E.</i> See <i>Baxter, G. P., Jackson, C. L., Torrey, H. A.</i>		
<i>Zee, Z. Z.</i> See <i>Johnson, T. B.</i>		
<i>Zhukoff, I. I.</i> See <i>Jones, H. C.</i>		
<i>Zies, E. G.</i> See <i>Morse, H. N.</i>		
<i>Zinn, J. B.</i> See <i>Morse, H. N.</i>		
<i>Zsigmondy, R. and Alexander, J.</i> Colloids and the ultra-microscope (Review).....	44,	107
— Kolloidchemie (Review).....	48,	470
<i>Zwilling, R.</i> See <i>Cuniassé, L.</i>		

SUBJECTS

ABBREVIATIONS.....	33,	197
Abegg and Bodländer, the electro-affinity theory of. <i>Locke</i>	28,	403
Abietic acid, contribution to the question of the constitution of. <i>Endemann</i>	33,	523
Absorption of light by water changed by the presence of strongly hydrated salts, as shown by the radiomicrometer, the—new evidence for the solvate theory of solution. <i>Guy, Shaeffer and Jones</i>	49,	265
— apparatus for elementary organic analysis. <i>Benedict</i>	23,	323
— spectra by means of the radiomicrometer, a quantitative study of. <i>Guy and Jones</i>	50,	257
— of certain salts of cobalt, erbium, neodymium and uranium as affected by temperature and by chemical reagents, the. XXXII. <i>Jones and Strong</i>	45,	1, 113

— — of certain salts in aqueous solution as affected by the presence of certain other salts with large hydrating power, the. XVII. <i>Jones and Uhler</i>	37,	126, 207
— — of certain salts in nonaqueous solvents as affected by the addition of water, the. XVIII. <i>Jones and Uhler</i>	37,	244
— — of comparatively rare salts, the. The spectrophotography of certain chemical reactions, and the effect of high temperature on the absorption spectra of nonaqueous solutions. XXXV. <i>Jones and Strong</i>	47,	27, 126
— — of solutions, the: a possible method for detecting the presence of intermediate compounds in chemical reactions. <i>Jones and Strong</i>	43,	224
— — of solutions as affected by temperature and by dilution, the. A quantitative study of absorption spectra by means of the radiomicrometer. <i>Jones and Guy</i>	49,	I
— — of solutions of a number of salts in water, in certain nonaqueous solvents and in mixtures of these solvents with water, the. XXIV. <i>Jones and Anderson</i>	41,	163, 276
— — of various salts in solution and the effect of temperature on such spectra, the. <i>Jones and Strong</i>	43,	37, 97
Acetate, cyanide and lithium, methods for the detection of. <i>Benedict</i>	32,	480
Acetic acid, on the behavior of sodium and sodium alcoholate towards various esters of. <i>Higley</i>	37,	293
— — in the presence of neutral salts, the application of the hydrogen electrode to the measurement of the hydrolysis of aniline hydrochloride, and the ionization of. <i>Loomis and Acree</i>	46,	621
— — and sulphuric acids, the lowering of the freezing point of aqueous hydrogen dioxide by. <i>Jones and Murray</i>	30,	205
Acetoacetic ester and analogous substances, the reaction between aliphatic sulphocyanates and metallic derivatives of. <i>Kohler</i>	22,	67
Acetone, the action of sodium on. <i>Bacon and Freer</i>	38,	367
— — the molecular weights of certain salts in. <i>Jones</i>	27,	16
— — with methyl alcohol, with ethyl alcohol and water, the conductivity and viscosity of solutions of certain salts in mixtures of. <i>Jones and Bingham</i> ..	34,	481
— — methyl alcohol, ethyl alcohol and water, together		

- with the viscosity and fluidity of these mixtures, the conductivity of solutions of lithium nitrate in ternary mixtures of. *X. Jones and Mahin*..... 41, 433
- methyl alcohol, ethyl alcohol, water and binary mixtures of these solvents, the conductivity and viscosity of solutions of certain salts in. *V. Jones and McMaster*..... 36, 325
- methyl alcohol, ethyl alcohol and water and in binary mixtures of these solvents, together with the conductivity of such solutions, the relative migration velocities of the ions of silver nitrate in. *Jones and Rouiller*..... 36, 427
- Acetylacetone, on the condensation of nitromalonic aldehyde with. *I. Hale and Robertson*..... 39, 680
- Acetophenone, benzaldehyde and related substances, the oxidation of hydroxy derivatives of. *Dakin*..... 42, 477
- Acetyl benzoyl and diacetyl peroxides, on the formation, decomposition and germicidal action of. *Freer and Novy*..... 27, 161
- chloride on selenic acid, the action of. *Lamb*.. 30, 209
- Acetylene diiodide, on a liquid. *Keiser*..... 21, 261
- diiodides, the synthesis of fumaric and maleic acids from the. *Keiser and McMaster*..... 46, 518
- gas as fuel in chemical laboratories, the use of. *Lachman*..... 24, 39
- Acetylhalogenaminobenzene derivatives into halogen-acetanilide derivatives, the rearrangement of: studies in catalysis. *Acree and Johnson*..... 37, 410
- Acetylidene compounds, on the constitution of the. *Lawrie* 36, 487
- Acetyl- and benzoylimidodithiocarbonic esters, on. *Wheeler and Johnson*..... 26, 185
- Acetyl- and benzoylpseudothioureas, on some. *Wheeler and Johnson*..... 26, 408
- Acidimetry, several acids suitable for use as standards in. *Kastle*..... 44, 487
- Acids, cyanogen iodide as an indicator for. *Kastle and Clark*..... 30, 87
- as determined by their conductivities, the basicity of. *Schmidt* 40, 305
- by enzymes, formation of. *Hinkins*..... 33, 164
- colorimetrically by means of certain vegetable coloring matters, a method for the determination of the affinities of. *Kastle*..... 33, 46
- Acids ($R.CH_2.CH_2.COOH$) into ketones ($R.CO.CH_3$), a general reaction for the conversion of saturated fatty. *Dakin*..... 44, 41

Acyldithiocarbamates, acylthioncarbamates and acylimidodithiocarbonates on α -amino acids, the action of. 2-Thiohydantoin. On hydantoins. VI. <i>Wheeler, Nicolet and Johnson</i>	46,	456
Acylhalogenamine derivatives and the Beckmann rearrangement, on. <i>Slosson</i>	29,	289
Acylimidodithiocarbonates, acylthioncarbamates and acyldithiocarbamates on α -amino acids, the action of. 2-Thiohydantoin. On hydantoins. VI. <i>Wheeler, Nicolet and Johnson</i>	46,	456
Acylimidodithiocarbonic and acylthiocarbamic esters, on the action of phenylhydrazine on: pyrro- α,β' -diazole derivatives. <i>Wheeler and Beardsley</i>	27,	257
Acylpseudothiouras and acylthiouras to isomeric symmetrical derivatives, on the molecular rearrangement of unsymmetrical. <i>Wheeler</i>	27,	270
Acylthiocarbamic and acylimidodithiocarbonic esters, on the action of phenylhydrazine on: pyrro- α,β' -diazole derivatives. <i>Wheeler and Beardsley</i>	27,	257
Acylthioncarbamates, acyldithiocarbamates and acylimidodithiocarbonates on α -amino acids, the action of. 2-Thiohydantoins. On hydantoins. VI. <i>Wheeler, Nicolet and Johnson</i>	46,	456
Acylthiocarbamic esters with alkali iodides and amines, on the behavior of: benzoylimidodithiocarbonic esters, acyclic benzoylpseudoureas and benzoylureas. <i>Wheeler and Johnson</i>	24,	189
Acylthiouras and acylpseudothiouras to isomeric symmetrical derivatives, on the molecular rearrangement of unsymmetrical. <i>Wheeler</i>	27,	270
Addition in organic chemistry, laws of:		
I. On the relative ease of addition in the alkene group. <i>Michael and Brunel</i>	41,	118
II. On the action of aqueous solutions of acids on alkenes. <i>Michael and Brunel</i>	48,	267
— to the article on page 373, Vol. 24. <i>Koenig</i>	24,	468
Additions.....	23,	452
<i>Adlumia cirrhosa</i> —a new protopine-bearing plant. <i>Schlatterbeck</i>	24,	249
Affinities of acids colorimetrically by means of certain vegetable coloring matters, a method for the determination of the. <i>Kastle</i>	33,	46
Aggregation and the molecular weight of solids, viscosity and fluidity of matter in the three states of. X. <i>Bingham</i>	45,	264
Alcoholates by certain salts in solution in methyl and ethyl		

alcohols, on the formation of. XV. <i>Jones and McMaster</i>	35,	316
— in solutions of certain electrolytes in alcohol, the existence of. <i>Jones and Getman</i>	32,	338
Alcoholic solutions, the limiting conductivity and ionization of. <i>Turner</i>	49,	558
Alcohols to nitriles catalyzed by ethylates, on the reversible addition of:		
I. Catalysis. XIV. <i>Marshall and Acree</i>	49,	127
II. Catalysis. XVI. On the reactions of both the ions and the nonionized forms of electrolytes. <i>Marshall, Harrison and Acree</i>	49,	369
— aldehydes and ketones towards oxidizing agents, on the behavior of. <i>Denis</i>	38,	561
— and amides, on the formation of esters from. Studies in catalysis. X. <i>Acree</i>	41,	457
— and water and on the conductivity of such mixtures, determination of the relative velocities of the ions of silver nitrate in mixtures of the. <i>Jones and Bassett</i>	32,	409
Alcoholysis or esterification of acid amides, the. <i>Reid</i> ...	41,	483
Aldehyde condensation products of phenylthiohydantoin. On hydantoin. II. <i>Wheeler and Brautlecht</i>	45,	446
— reactions, a quantitative study of some. <i>Feinberg</i>	49,	87
Aldehydes by an aqueous solution of bromine, the oxidation of. <i>Anderson</i>	49,	179
— ketones and alcohols towards oxidizing agents, on the behavior of. <i>Denis</i>	38,	561
— and unsaturated ketones, reactions of unsaturated. The reaction between unsaturated compounds and organic magnesium compounds. I. <i>Kohler</i>	31,	642
Aldol, pentaerythrose and the action of copper acetate on the hexoses, on. <i>McLeod</i>	37,	20
Alkali carbonates in the presence of bicarbonates, estimation of. <i>Cameron</i>	23,	471
— chlorides with mercuric chloride and their solubility, the double salts of the. <i>Foote and Levy</i> ...	35,	236
— earths, lead and silver, on some double and triple salts of caesium nitrite with the nitrites of the. <i>Jamieson</i>	38,	614
— and alkali earth metals, the hydrargyrides of the: on amalgams. <i>Smith</i>	38,	671
Alkaline earths, on some abnormal freezing-point lowerings produced by chlorides and bromides of the. <i>Jones and Chambers</i>	23,	89

Alkene group, on the relative ease of addition in the. Laws of addition in organic chemistry. I. <i>Michael and Brunel</i>	41,	118
Alkenes, on the action of aqueous solutions of acids on. Laws of addition in organic chemistry. II. <i>Michael and Brunel</i>	48,	267
Alkoxy groups, the reaction between organic magnesium compounds and unsaturated compounds containing. <i>Reynolds</i>	44,	305
β -Alkyl- α,μ -diketotetrahydrothiazoles. On the molecular rearrangement of the thioncarbamic, thioncarb- anilic and thioncarbazine esters. <i>Wheeler and Barnes</i>	24,	60
Alkylhydroxylamines, a study of some new. <i>Hecker</i>	50,	443
Alkylmalonic nitriles and their derivatives, on. <i>Hessler</i> ..	22,	169
Allo- and neochlorophyll in the presence of one another, methods for determining. <i>Jacobson and March- lewski</i>	48,	111
Aluminium, a new method for the determination of. <i>Allen and Gottschalk</i>	24,	292
— the action of caustic hydroxides on. <i>Allen and Rogers</i>	24,	304
— compounds, the molecular weight of. <i>Kohler</i> ...	24,	385
— halides, the structure of the substances obtained by the addition of organic oxygen compounds and. <i>Kohler</i>	27,	241
Alums, gradations in the properties of. On the periodic system and the properties of inorganic compounds. II. <i>Locke</i>	26,	166
— as a function of two variables, the solubility of. On the periodic system and the properties of in- organic compounds. III. <i>Locke</i>	26,	332
Allylmalonic acid and some alkyl-substituted allylmalonic acids, on the condensation of thiourea with esters of. Researches on pyrimidines. L. <i>Johnson and Hill</i>	45,	356
— and some alkyl-substituted allylmalonic acids, the condensation of urea and guanidine with the esters of. Researches on pyrimidines. LIV. <i>Johnson and Hill</i>	46,	537
Allylphthalimide into propenylphthalimide, the trans- formation of. <i>Johnson and Jones</i>	45,	343
Amalgams, on: the hydrargyrides of the alkali and alkali earth metals. <i>Smith</i>	38,	671
— on the constitution of (preliminary communica- tion). <i>Smith</i>	36,	124

Amides, on the hydrolysis of acid. <i>Remsen</i>	21,	281
<i>Reid</i>	21, 284; 24, 397; 45,	327
— researches on the sodium salts of the. <i>Wheeler</i>	23,	453
— the alcoholysis or esterification of acid. <i>Reid</i> ..	41,	483
— by acids, on the hydrolysis of. Catalysis. V.		
<i>Acree and Nirdlinger</i>	38,	489
— in liquid ammonia, reactions between acid and		
basic. <i>Franklin and Stafford</i>	28,	83
— and alcohols, on the formation of esters from.		
Studies in catalysis. Catalysis. X. <i>Acree</i>	41,	457
Amidine series, on isomerism in the: diphenylbenzenyl-		
aminoamidine and phenylbenzenylphenylamino-		
amidine. <i>Wheeler and Johnson</i>	31,	577
Amines, a new synthesis of secondary. <i>Tingle</i>	24,	276
— note on the preparation of certain. <i>Clarke</i>	33,	496
— researches on:		
I. Synthesis of methylphenylethylamine. <i>John-</i>		
<i>son and Guest</i>	42,	340
II. Syntheses of 4-nitrophenylethylamine and of		
2,4-dinitrophenylethylamine. <i>Johnson and</i>		
<i>Guest</i>	43,	310
— by the use of alkyl salicylates, the synthesis of.		
<i>Tingle</i>	25,	144
— of the aliphatic series, the preparation of the		
higher. Undecylamine and pentadecylamine. <i>Jef-</i>		
<i>freys</i>	22,	14
— upon phthalyl chloride at different temperatures,		
action of aromatic. <i>Kuhara and Fukui</i>	26,	454
— and camphoroxalic acid, condensation com-		
pounds of. Interaction of ethyl oxalate and		
camphor: V. <i>Tingle and Tingle</i>	23,	214
— and quinones, addition compounds of tertiary.		
<i>Jackson and Clarke</i>	34,	441
— and the composition of nitrogen iodide, action of		
iodine on the fatty. <i>Norris and Franklin</i>	21,	499
— and with tetramethylammonium, some double		
halides of tin with the aliphatic. <i>Cook</i>	22,	435
Aminoacetonitriles, the action of hydrogen sulphide on		
nitrogen-substituted. Thioamides. IV. <i>Johnson and</i>		
<i>Burnham</i>	47,	232
Amino acids, alkylation of aromatic:		
II. 2-Amino-5-iodobenzoic acid and 2-amino-3,5-		
diiodobenzoic acid. <i>Wheeler and Johns</i>	43,	398
III. Methylaminobenzoic acids. <i>Wheeler and Hoff-</i>		
<i>man</i>	44,	113

IV. Aminonitro and aminoiodo acids. <i>Wheeler and Johns</i>	44,	441
V. 2,4-Dimethyl-3-aminobenzoic acid. <i>Wheeler and Hoffman</i>	45,	436
α -Amino acids, a new method of synthesizing N-alkyl derivatives of. Methyltyrosine. Hydantoins. XI. <i>Johnson and Nicolet</i>	47,	459
— — the action of acylthioncarbamates, acyl-dithiocarbamates and acylimidodithiocarbonates on. 2-Thiohydantoin. On hydantoins. VI. <i>Wheeler, Nicolet and Johnson</i>	46,	456
— — the action of ammonium and potassium thiocyanates on. Hydantoins. XXI. <i>Johnson and Nicolet</i>	49,	197
— — the action of thiocyanates on. Hydantoins. <i>Johnson</i>	49,	68
Amino acids, peptides and peptones, the copper complexes of. II. Their configuration and relation to the biuret reaction. <i>Kober and Sugiura</i>	48,	383
4-Amino-3,5-diiodobenzoic acid: iodine derivatives of <i>p</i> -toluidine. Researches on aminohalogen acids. VI. <i>Wheeler and Liddle</i>	42,	441
2-Amino-3,5-diiodobenzoic and 2-amino-5-iodobenzoic acid. On alkylation of aromatic amino acids. II. <i>Wheeler and Johns</i>	43,	398
Aminohalogen acids, researches on:		
IV. 3,5-Dibromophenylalanine. <i>Wheeler and Clapp</i>	40,	337
V. <i>p</i> -Iodophenylalanine. <i>Wheeler and Clapp</i>	40,	458
VI. Iodine derivatives of <i>p</i> -toluidine: 4-amino-3,5-diiodobenzoic acid. <i>Wheeler and Liddle</i>	42,	441
VII. Iodine derivatives of <i>o</i> -toluidine. The amino-3-iodobenzoic acids. <i>Wheeler and Liddle</i>	42,	498
VIII. The position of the iodine atoms in diiodotyrosine (iodogorgoic acid). <i>Wheeler and Johns</i> ..	43,	11
Aminoiodo and aminonitro acids. Alkylation of aromatic amino acids. IV. <i>Wheeler and Johns</i>	44,	441
2-Amino-5-iodobenzoic acid and 2-amino-3,5-diiodobenzoic acid. On alkylation of aromatic amino acids. II. <i>Wheeler and Johns</i>	43,	398
Amino-3-iodobenzoic acids, the. Iodine derivatives of <i>o</i> -toluidine. Researches on aminohalogen acids. VII. <i>Wheeler and Liddle</i>	42,	498
Aminolauronic acid, some derivatives of. Camphoric acid. XV. <i>Noyes and Taveau</i>	35,	379

Aminonitro and aminoiodo acids. Alkylation of aromatic amino acids. IV. <i>Wheeler and Johns</i>	44,	441
<i>o</i> - and <i>p</i> -Aminophenols, acyl derivatives of. <i>Tingle and Williams</i>	37,	51
Aminophenyl alkyl carbonates, the molecular rearrangement of. <i>Stieglitz and Upson</i>	31,	458
<i>Upson</i>	32,	13
<i>o</i> -Aminophenyl ethyl carbonate to <i>o</i> -hydroxyphenylurethan, on the molecular rearrangement of. <i>Ransom</i>	23,	1
2-Aminopyrimidine, dimethyl derivatives of. Preparation of 5-methyl-2-methylaminopyrimidine. Researches on pyrimidines. XLVI. <i>Johnson and Mackenzie</i>	42,	353
<i>o</i> -Amino- <i>p</i> -sulphobenzoic acid with special reference to its fluorescence, a study of. <i>Kastle</i>	45,	58
— and its derivatives, with special reference to their fluorescence, a study of. II. <i>Kastle and Haden</i>	46,	508
Ammonia, metathetic reactions between certain salts in solution in liquid. <i>Franklin and Kraus</i>	21,	1
— reactions between acid and basic amides in liquid. <i>Franklin and Stafford</i>	28,	83
— some properties of liquid. <i>Franklin and Kraus</i> ..	21,	8
— and nitrous and nitric oxides, pure nitrogen from. <i>Baxter and Hickey</i>	33,	300
— mercury compounds, a theory of the. <i>Franklin</i>	47,	361
Ammonia-soluble phosphoric acid of the soil, the. <i>Fraps</i>	39,	579
Ammonia solutions, the conductivity temperature coefficient of some liquid. <i>Franklin and Kraus</i>	24,	83
— the electrical conductivity of liquid. <i>Franklin and Kraus</i>	23,	277
— system of acids, bases and salts, the. <i>Franklin</i> ..	47,	285
Ammonium, the acid oxalates of. <i>Walden</i>	34,	147
— benzoate and benzamide and water, the equilibrium between. <i>Reid</i>	44,	76
— lead chlorides, the double. <i>Foote and Levy</i>	37,	119
— pentasulphide, a rapid method for the preparation of crystals of (Note). <i>Byers</i>	28,	490
— salts of organic acids, a general method for the preparation of the. <i>Keiser and McMaster</i>	49,	84
— of some organic acids, on the preparation and properties of the. <i>McMaster</i>	49,	294
— sulphocyanate, the action of benzoyl chloride on. <i>Benson and Hillyer</i>	26,	373
— and thiourea as sources of nitrogen to fungi and microorganisms. <i>Kastle and Elvove</i>	31,	550

— and potassium thiocyanates on α -amino acids, the action of. Hydantoins. XXI. Johnson and Nicolet.....	49,	197
Analysis of organic substances with the help of sodium peroxide, the. Pringsheim.....	31,	386
Anethole and its isomers. Orndorff and Morton.....	23,	181
Anhydrides and the formation of organic acid peroxides and peracids, the action of hydrogen peroxide on. Clover and Houghton.....	32,	43
Aniline, the action of phosphorus pentachloride on. Gilpin.....	27,	444
— and certain of its derivatives, the nitration of. I. Tingle and Blanck.....	36,	605
— and hydroxylamine with hydroxy and unsaturated compounds, the reactions of. Tingle.....	24,	45
— and the toluidines, the double halides of antimony with. Higbee.....	23,	150
— hydrochloride, and the ionization of acetic acid in the presence of neutral salts, the application of the hydrogen electrode to the measurement of the hydrolysis of. Loomis and Acree.....	46,	621
Anilinomalonate, certain substitution derivatives of ethyl. Curtiss.....	30,	133
— on an acid derivative of ethyl. Curtiss.....	28,	315
— on the action of nitrous acid on ethyl (preliminary report). Curtiss.....	23,	509
2-Anilinopyrimidine, the action of methyl iodide on 6-oxy-2-anilinopyrimidine and the synthesis of. Researches on pyrimidines. XXI. Johnson and Heyl.....	38,	237
Animal organism and the toxic action of powerful oxidizing substances, oxidation and reduction in the. Kastle and Elvove.....	31,	195
Announcement, special.....	50,	340
"Anti" and "syn" stereoisomerism of nitrogen compounds, the. Stieglitz.....	40,	36
Antimony, on a salt of quadrivalent. Wells and Metzger..	26,	268
— with aniline and the toluidines, the double halides of. Higbee.....	23,	150
— and tellurium, the alloys of. Fay and Ashley...	27,	95
Apparatus, some new. Acree.....	35,	309
Applied Chemistry, Eighth International Congress of...	43,	284
Argentie bromide and chloride in solutions of sodic thio-sulphate, on the solubility of. Richards and Faber.....	21,	167
Arsines, primary. Dehn.....	33,	101
— reactions of the. Dehn.....	40,	88
— secondary. Dehn and Wilcox.....	35,	1

Asbestos for Gooch crucibles, note on the preparation and the use of. <i>Kober</i>	41,	430
Asparagine, the action of potassium thiocyanate on. Hy-dantoin. XIV. <i>Johnson and Guest</i>	48,	103
Asphalts from animal and vegetable materials, the labora-tory production of. <i>Day</i>	21,	478
Association of a liquid diminished by the presence of another associated liquid, the. <i>Jones and Murray</i>	30,	193
Atomic weights, the calculation of. <i>Clarke</i>	27,	321
— — and the index of refraction, a periodic re-lation between the. <i>Bishop</i>	35,	84
Avogadro prize.....	49,	79
Avogadro's memoir on the molecular constitution of gases, centenary of the publication of.....	41,	560
<i>p</i> -Azoxybenzaldehyde, on. <i>Alway</i>	28,	34
Azoxybenzaldehydes, on the. <i>Alway</i>	28,	475
BABCOCK test, the estimation of fat in sweetened con-densed milk by the. <i>Farrington</i>	24,	267
Barbituryl- and 2-thiobarbituryl-5-acetic acids. Re-searches on pyrimidines. LIX. <i>Johnson and Kohmann</i>	49,	184
Barium, the action of carbon dioxide on the borates of. <i>Morse and Horn</i>	24,	105
— and of silver in the determination of sulphates and chlorides, use of the chromates of. <i>Andrews</i> ..	32,	476
— caesium cuprous thiocyanate, $\text{Cs}_3\text{BaCu}_2(\text{SCN})_7$. <i>Wells</i>	28,	273
— — silver thiocyanate, $\text{Cs}_3\text{BaAg}_2(\text{SCN})_7$. <i>Hupfel and Wells</i>	28,	272
— and mercuric chlorides, on the solubility of. <i>Foote and Bristol</i>	32,	246
— hydroxide on <i>d</i> -glucose and <i>d</i> -galactose, on the action of normal. <i>Upson</i>	45,	458
— and potassium nitrates, on a double salt of. <i>Wallbridge</i>	30,	154
— and potassium nitrates and chlorides, on the solubility of. <i>Foote</i>	32,	251
— potassium silver thiocyanate. <i>Wells</i>	28,	283
— and calcium salts, the relative solubility of some difficultly soluble. <i>Foote and Menge</i>	35,	432
— silver rubidium thiocyanates, on. <i>Wells</i>	30,	184
— — strontium silver and calcium silver thio-cyanates. <i>Wells and Merriam</i>	28,	269
— sulphate in ferric chloride, aluminium chloride and magnesium chloride, the solubility of. <i>Fraps</i>	27,	288

Barometer, an easily constructed. <i>Russell</i>	25,	508
Base-forming property of carbon, on the. <i>Norris</i>	38,	627
Basicity of acids as determined by their conductivities, the. <i>Schmidt</i>	40,	305
Bay tree, on the acids of the fat of the California. <i>Stillman</i> and <i>O'Neill</i>	28,	327
"Beckmann rearrangement," on the. II. <i>Stieglitz</i>	29,	49
III. Stereoisomeric chloroimido acid esters. <i>Stieglitz</i> and <i>Earle</i>	30,	399
IV. <i>Stieglitz</i> and <i>Earle</i>	30,	412
Reactions among certain classes of compounds containing nitrogen. Applications of the electronic conception of valence. <i>Jones</i>	50,	414
— — — of hydroxamic acids, the. <i>Jones</i>	48,	I
— — — and acylhalogenamine derivatives, on the. <i>Slosson</i>	29,	289
Beckmann's boiling-point apparatus, a simplification of. <i>Bigelow</i>	22,	280
Benzaldehyde, acetophenone and related substances, the oxidation of hydroxy derivatives of. <i>Dakin</i>	42,	477
Benzalmalonate, reactions with ethyl. The reaction between unsaturated compounds and organic magnesium compounds. VI. <i>Kohler</i>	34,	132
Benzamide and ammonium benzoate and water, the equilibrium between. <i>Reid</i>	44,	76
— and the preparation of N-substituted benzamides, the esterification of. <i>Reid</i>	45,	38
Benzene, the constitution of. <i>Richardson</i>	25,	123
Benzene-4-azoresorcinol and the constitution of the hydroxyazo compounds, on the two modifications of. <i>Orndorff</i> and <i>Thebaud</i>	26,	159
Benzeneselenonic acid and related compounds. <i>Doughty</i> ..	41,	326
Benzenesulphonamide at high temperatures, reaction between carboxylic acids and. <i>Rouiller</i>	47,	475
Benzenesulphondibromoamide into dibromobenzenesulphonamide by means of concentrated sulphuric acid, on the conversion of. <i>Kastle</i>	45,	219
Benzenesulphonic acid, isopropionic acid and benzoic acid, on some semicarbazide derivatives of. Urazoles. IX. <i>Acree</i>	37,	361
Benzenesulphonylaminoacetonitrile, some derivatives of. <i>Johnson</i> and <i>McCollum</i>	35,	54
Benzhydrol, on the reactions of sodium. <i>Bacon</i>	33,	68
— derivatives and cyanobromoacetic ester, on substituted. <i>Goldthwaite</i>	30,	447

Benzidine and from <i>o</i> -tolidine, action of alcohols on the tetrazonium chlorides derived from. <i>Winston</i>	31,	119
Benzoic acid by mercaptan and of thiolbenzoic acid by alcohol, the esterification of. Studies in esterification. <i>Reid</i>	43,	489
— — benzenesulphonic acid and isopropionic acid, on some semicarbazide derivatives of. Urzoles. IX. <i>Acree</i>	37,	361
Benzoin, on the phenylhydrazones of. <i>Smith</i>	22,	198
— some reactions of. <i>Garner</i>	32,	583
— the action of benzoyl chloride on the phenylhydrazones of. <i>Freer</i>	22,	396
Benzonitrile, the preparation of (Note). <i>Tingle</i>	35,	87
Benzophosphide. <i>Evans and Tilt</i>	44,	361
<i>o</i> -Benzoquinone, on certain addition compounds derived from. <i>Jackson and Porter</i>	31,	89
— on certain derivatives of. <i>Jackson and Koch</i> ...	26,	10
Benzoylbenzimidic ethyl ester and silver succinimide, experiments with. <i>Barnes</i>	23,	148
Benzoylbenzylurea, benzoyl- <i>p</i> -tolylurea and the corresponding pseudoethylureas, on: a correction. <i>Wheeler and Johnson</i>	27,	218
Benzoylcarbinol towards alkalis and oxidizing agents, on the behavior of. <i>Evans</i>	35,	115
Benzoyl chloride, the action of zinc on. <i>Norris and Franklin</i>	29,	141
— — on ammonium sulphocyanate, the action of. <i>Benson and Hillyer</i>	26,	373
Benzoylformic acid and some of its derivatives, the preparation of. On the pinacol-pinacolin rearrangement. IV. <i>Acree</i>	50,	389
Benzoyl- and acetylimidodithiocarbonic esters, on. <i>Wheeler and Johnson</i>	26,	185
Benzoylimidodithiocarbonic esters, acyclic benzoylpseudothioureas and benzoylureas: on the behavior of acylthioncarbamic esters with alkali iodides and amines. <i>Wheeler and Johnson</i>	24,	189
Benzoylpseudothioureas, on the action of phenylhydrazine on: 1,5-diphenyl-3-aminopyrro- α,β' -diazole derivatives. <i>Wheeler and Beardsley</i>	29,	73
Benzoyl- and acetylpseudothioureas, on some. <i>Wheeler and Johnson</i>	26,	408
Benzoylpseudoureas, on the action of phenylhydrazine on: 1,5-diphenyl-3-aminopyrro- α,β' -diazole derivatives. <i>Johnson and Menge</i>	32,	358
— benzoylureas and benzoylimidodithiocarbonic esters,		

acyclic: on the behavior of acylthioncarbamic esters with alkali iodides and amines. <i>Wheeler and Johnson</i>	24,	189
Benzoyl- <i>p</i> -tolylurea, benzoylbenzylurea and the corresponding pseudoethylureas, on: a correction. <i>Wheeler and Johnson</i>	27,	218
Benzoylureas, benzoylimidothiocarbonic esters and acyclic benzoylpseudoureas: on the behavior of acylthioncarbamic esters with alkali iodides and amines. <i>Wheeler and Johnson</i>	24,	189
Benzyl chloride, alkylation with. Researches on pyrimidines. LX. <i>Johnson and Zee</i>	49,	287
— derivatives of uracil and thymine, syntheses of some. Researches on pyrimidines. XXXVIII. <i>Johnson and Derby</i>	40,	444
5-Benzylmercaptouracil and 5-benzylmercaptocytosine, preparation of: sulphur derivatives of 5-hydroxyuracil. Researches on pyrimidines. XLV. <i>Johnson and Guest</i>	42,	271
3-Benzyl- and 3-methyluracil, the preparation of. Researches on pyrimidines. XLIII. <i>Wheeler and Johnson</i>	42,	30
Bicarbonates, estimation of alkali carbonates in the presence of. <i>Cameron</i>	23,	471
Bile, on bilirubin, the red coloring matter of the. <i>Orndorff and Teeple</i>	26, 86; 33,	215
Biological oxidations, peroxidase accelerators and their possible significance for. <i>Kastle</i>	40,	251
Bismuth, the basic nitrates of. <i>Allan</i>	25,	307
— the sulphates of. <i>Allan</i>	27,	284
— caesium nitrate. <i>Jamieson</i>	26,	277
Biuret reaction, their configuration and relation to the. The copper complexes of amino acids, peptides and peptones. II. <i>Kober and Sugiura</i>	48,	383
Bodländer and Abegg, the electro-affinity theory of. <i>Locke</i>	28,	403
Boiling-point apparatus, a simplification of Beckmann's. <i>Bigelow</i>	22,	280
— — method, an apparatus for determining molecular weights by the. <i>McCoy</i>	23,	353
— — and conductivity methods, the dissociation of electrolytes in nonaqueous solvents as determined by the. <i>Kreider and Jones</i>	45,	282
Bomb calorimeter, friction in the. <i>Roesler</i>	44,	80
Borates of barium, the action of carbon dioxide on the. <i>Morse and Horn</i>	24,	105

- Bredt's formula, confirmation of: some derivatives of inactive camphoric acid. Camphoric acid. X. *Noyes and Patterson*..... 27, 425
- Bromination, studies in:
Cohen and Cross..... 39, 431
 A reply to Cohen and Cross. *Acree, Johnson and Nirdlinger*..... 39, 544
 Catalysis. VI. *Acree, Johnson and Nirdlinger*.. 38, 746
 — of phenol, the. *Dinwiddie and Kastle*..... 46, 502
- Bromine, note on the Budde effect with reference to.
Caldwell..... 31, 61
 — and of iodine, on the color of compounds of. *Kastle*..... 21, 398
 — and iodine, on the effect of very low temperatures on the color of compounds of. *Kastle*..... 23, 500
 — addition compounds of dimethylaniline. *Johnson and Clarke*..... 34, 261
 — method for the determination of thymol, salicylates and similar compounds, a new. *Seidell*..... 47, 508
- m*-Bromo-, *m*-iodo- and *m*-chloroanilines, the action of bromine on. Researches on substitution: II. *Wheeler and Valentine*..... 22, 266
- Bromoform by electrolysis, on the preparation of. *Coughlin*..... 27, 63
- α -Bromo ketones, the action of alkaline hydroxides on. *Kohler*..... 41, 417
- p*-Bromo-*o*-sulphobenzoic acid and some of their derivatives, the chlorides of. *Blanchard*..... 30, 485
- Budde effect with reference to bromine, note on the. *Caldwell*..... 31, 61
- Bunsen memorial, a..... 30, 537
 — vacuum pump, a modification of the. *Ittner*... 24, 253
- Butyl alcohol, some new derivatives of secondary. *Norris and Green*..... 26, 293
- Butyrate by lipase, the hydrolysis of ethyl. *Kastle, Johnston and Elvove*..... 31, 521
- Burettes, a method for calibrating. *Horn and Van Wagener*..... 30, 96
 — the calibration of (Note). *Andrews*..... 28, 491
- CADMIUM with the methylamines and tetramethylammonium, some double halides of. *Ragland*... 22, 417
 — and alcoholic solutions of some of its salts, differences of potential between. *Getman*..... 46, 117
 — silver and caesium, on the double and triple thiocyanates of. *Wells*..... 30, 144

— chloride and cadmium bromide, the specific gravities of. <i>Baxter and Hines</i>	31,	220
— halides, a study of the refractive indices of solutions of the. <i>Getman and Gilroy</i>	48,	138
Caesium, on the iodides of. <i>Foote</i>	29,	203
— cadmium and silver, on the double and triple thiocyanates of. <i>Wells</i>	30,	144
— cobalt and silver, on double and triple thiocyanates of. <i>Shinn and Wells</i>	29,	474
— lithium, sodium and potassium and their solubility, the acid oxalates of. <i>Foote and Andrew</i>	34,	153
— and potassium, on iodocyanides of. <i>Mathewson and Wells</i>	30,	430
— potassium and rubidium, the polyiodides of. <i>Foote and Chalker</i>	39,	561
— and thallic thallium, on some double sulphates of. <i>Locke</i>	27,	280
— bismuth nitrite. <i>Jamieson</i>	26,	277
— calcium, caesium strontium and caesium magnesium thiocyanates, the. <i>Merriam</i>	28,	266
— and mercuric chlorides and their solubility, on the double. <i>Foote</i>	30,	339
— cuprous barium thiocyanate, $\text{Cs}_2\text{BaCu}_2(\text{SCN})_7$. <i>Wells</i>	28,	273
— — thiocyanate, $\text{CsCu}(\text{SCN})_2$. <i>Roberts</i>	28,	262
— double nitrates. <i>Wells and Beardsley</i>	26,	275
— ferric thiocyanate. <i>Wallbridge</i>	28,	256
— iodate-periodate and periodate. <i>Wells</i>	26,	278
— iodide and mercuric cyanide, on a compound of. <i>Mathewson and Wells</i>	30,	432
— lead bromides, the double. <i>Foote</i>	37,	124
— — and potassium lead thiocyanates, the. <i>Wallbridge and Wells</i>	28,	258
— manganous thiocyanate, $\text{Cs}_4\text{Mn}(\text{SCN})_6$. <i>Leavenworth</i>	28,	261
— material, on the purification of. <i>Wells</i>	26,	265
— mercuric thiocyanates, the. <i>Bristol</i>	28,	260
— nitrite with the nitrites of silver, the alkali earths and lead, on some double and triple salts of. <i>Jamieson</i>	38,	614
— periodate and iodate-periodate. <i>Wells</i>	26,	278
— silver barium thiocyanate, $\text{Cs}_2\text{BaAg}_2(\text{SCN})_7$. <i>Hupfel and Wells</i>	28,	272
— — calcium and the caesium silver magnesium thiocyanates, the. <i>Merriam</i>	28,	275

— — — manganous thiocyanate, $\text{Cs}_2\text{MnAg}_2\text{-(SCN)}_6 \cdot 2\text{H}_2\text{O}$. <i>Leavenworth and Wells</i>	28,	276
— — — nickel and the caesium cuprous nickel thiocyanates, the. <i>Roberts and Wells</i>	28,	277
— — — strontium and caesium cuprous strontium thiocyanates. <i>Merriam</i>	28,	274
— — — thiocyanates, the. <i>Wells</i>	28,	263
— — — zinc thiocyanates, the. <i>Wells</i>	28,	278
— — — thalious thiocyanate, $\text{CsTl}_4(\text{SCN})_5$. <i>Wells</i>	28,	270
— — — zinc and silver zinc thiocyanates, the. <i>Wells</i> ...	28,	268
Calcium caesium silver and the magnesium caesium silver thiocyanates, the. <i>Merriam</i>	28,	275
— — — strontium caesium and magnesium caesium thiocyanates, the. <i>Merriam</i>	28,	266
— — — and barium salts, the relative solubility of some difficultly soluble. <i>Foote and Menge</i>	35,	432
— — — silver, barium silver and strontium silver thiocyanates. <i>Wells and Merriam</i>	28,	269
— — — tartrate as a distinctive and delicate test for the presence of tartaric acid and tartrates, the crystalline appearance of. <i>Sullivan and Crampton</i>	36,	419
Calibrating burettes, a method for. <i>Horn and Van Wagener</i>	30,	96
Calibration of burettes, the (Note). <i>Andrews</i>	28,	491
Calomel electrode, of the hydrogen electrode and of contact potential, a study of the. <i>Loomis and Acree</i> ..	46,	585
<i>Myers and Acree</i>	50,	396
Calorimeter, friction in the bomb. <i>Roesler</i>	44,	80
Camphanic and camphononic acids. Camphoric acid. XIII. <i>Noyes and Warren</i>	28,	480
<i>cis-trans</i> -Campholytic acid, structure and configuration of. Camphoric acid. IX. <i>Noyes and Philips</i>	24,	285
Campholytic acid and racemic dihydrohydroxycampholytic acid, racemic. Camphoric acid. X. <i>Noyes and Blanchard</i>	26,	281
Camphononic and camphanic acids. Camphoric acid. XIII. <i>Noyes and Warren</i>	28,	480
Camphor, interaction of ethyl oxalate and: V. Condensation compounds of amines and camphor-oxalic acid. <i>Tingle and Tingle</i>	23,	214
— — — the action of ethyl oxalate on, IV. <i>Tingle and Tingle</i>	21,	238
Camphoric acid:		
<i>Noyes</i> VI, 22, 1; VII, 22, 256; VIII, 23,		128
IX. Structure and configuration of <i>cis-trans</i> -campholytic acid. <i>Noyes and Philips</i>	24,	285

X. Racemic campholytic acid and racemic dihydrohydroxycampholytic acid. <i>Noyes and Blanchard</i>	26,	281
XI. Confirmation of Bredt's formula; some derivatives of inactive camphoric acid. <i>Noyes and Patterson</i>	27,	425
XII. Synthesis of trimethylparaconic acid. <i>Noyes and Patterson</i>	28,	228
XIII. Camphanic and camphononic acids. <i>Noyes and Warren</i>	28,	480
XIV. Derivatives of trimethylparaconic acid. <i>Noyes</i>	33,	356
XV. Some derivatives of aminolauronic acid. <i>Noyes and Taveau</i>	35,	379
Camphoroxalic acid: XII. Study of the action of primary and tertiary amines on camphoroxalic acid. <i>Tingle and Williams</i>	39,	277
— — a continuation of the study of the action of amines on. <i>Tingle and Robinson</i>	36,	223
— — condensation compounds of amines and. Interaction of ethyl oxalate and camphor: V. <i>Tingle and Tingle</i>	23,	214
— — derivatives:		
VII. Condensation compounds of camphoroxalic acid and amines. <i>Tingle and Hoffman</i>	32,	217
XI. Study of the action of certain secondary amines on camphoroxalic acid. <i>Tingle and Williams</i> ...	39,	105
Camphoroxime, some derivatives of. <i>Frankforter and Mayo</i>	21,	471
— derivatives. <i>Frankforter and Glasoe</i>	21,	474
Cane sugar, the osmotic pressure and freezing points of solutions of. <i>Morse and Frazer</i>	34,	1
— — solutions, a redetermination of the osmotic pressure and of the depression of the freezing points of. <i>Morse, Frazer, Hoffman and Kennon</i>	36,	39
— — — in the vicinity of the freezing point of water, the osmotic pressure of. <i>Morse, Frazer and Holland</i>	37,	425
— — — in the vicinity of 5°, the osmotic pressure of. <i>Morse, Frazer and Dunbar</i>	38,	175
— — — at 10°, the osmotic pressure of. <i>Morse and Morse</i>	39,	667
— — — at 15°, the osmotic pressure of. <i>Morse and Mears</i>	40,	194
— — — at 20°, the osmotic pressure of. <i>Morse and Holland</i>	41,	257

— — — at 25°, the osmotic pressure of.		
<i>Morse and Holland</i>	41,	I
— — — at high temperatures, the osmotic pressure of.		
<i>Morse, Holland, Myers, Cash and Zinn</i>	48,	29
Capillary diffusion, the fractionation of crude petroleum by.		
<i>Gilpin and Cram</i>	40,	495
<i>o</i> -Carbamidobenzenesulphonic acid and <i>o</i> -sulphamido-benzoic acid, a comparative study of.		
<i>Wilson</i>	30,	353
Carbimide derivatives, on the constitution of the salts of imido esters and other.		
<i>Stieglitz</i>	21,	101
Carbon, on the base-forming property of.		
<i>Norris</i>	38,	627
— on the nonexistence of trivalent.		
<i>Norris</i>	25,	117
— on trivalent (reply to J. F. Norris).		
<i>Gomberg</i> ..	25,	317
— hydrogen and sulphur in organic compounds, an electrical method for the simultaneous determination of.		
<i>Morse and Gray</i>	35,	451
— hydrogen and sulphur in organic compounds, notes on the electrical method of Morse and Gray for the simultaneous determination of.		
<i>Reid</i>	47,	416
Carbonates in the presence of bicarbonates, estimation of alkali.		
<i>Cameron</i>	23,	471
Carbon dioxide to proteolysis in the ripening of cheddar cheese, the relation of.		
<i>Van Slyke and Hart</i>	30,	I
— monoxide, the action of ozone on.		
<i>Waters</i>	30,	50
— — the action of ozone, hydrogen peroxide, etc., on.		
<i>Jones</i>	30,	40
— — on sodium alcoholates alone and in the presence of salts of fatty acids, the action of.		
<i>Beatty</i>	30,	224
— tetrachloride with chlorobenzene by means of the Friedel and Crafts reaction, the condensation of.		
<i>Norris and Twieg</i>	30,	392
— — with halogen derivatives of benzene by means of the Friedel and Crafts reaction, the condensation of.		
<i>Norris and Green</i>	26,	492
— — and of chlorine in a solution of carbon tetrachloride on metallic oxides, on the action of.		
<i>Michael and Murphy</i>	44,	365
Carbonyl compounds with hydroxylamine and hydroxylamine hydrochloride, on the reactions of.		
Catalysis. VII.		
<i>Acree</i>	39,	300
— group, the addition of iodine and potassium iodide to organic compounds containing the.		
<i>Clover</i>	31,	256
Carbophenylimido derivatives, on the hydrochlorides of.		
<i>McCoy</i>	21,	111

Carboxylic acids and benzenesulphonamide at high temperatures, reaction between. <i>Rouiller</i>	47,	475
Casein, the hydrolysis of the sodium salts of. <i>Van Slyke</i> and <i>Van Slyke</i>	38,	619
— when no soluble compounds are formed, the action of dilute acids upon. <i>Van Slyke</i> and <i>Van Slyke</i>	38,	383
— and paracasein contained in cottage and cheddar cheese, a study of the artificial digestion of some compounds of. <i>Van Slyke</i> and <i>Hart</i>	32,	154
— and paracasein in some of their relations to bases and acids. <i>Van Slyke</i> and <i>Hart</i>	33,	461
— and paracasein with acids, a study of some of the salts formed by: their relations to American cheddar cheese. <i>Van Slyke</i> and <i>Hart</i>	28,	411
Catalase, a note on the nature and function of. On the catalytic decomposition of hydrogen peroxide and the mechanism of induced oxidations. <i>Loevenhart</i> and <i>Kastle</i>	29,	397
Catalysis:		
IV. Studies in catalysis. <i>Acree</i> and <i>Johnson</i>	38,	258
V. On the hydrolysis of amides by acids. <i>Acree</i> and <i>Nirdlinger</i>	38,	489
VI. Studies in bromination. <i>Acree</i> , <i>Johnson</i> and <i>Nirdlinger</i>	38,	746
VII. On the reactions of carbonyl compounds with hydroxylamine and hydroxylamine hydrochloride. <i>Acree</i>	39,	300
VIII. On the theories of catalysis: a reply to Julius Stieglitz. <i>Acree</i>	39,	513
X. Studies in catalysis: on the formation of esters from amides and alcohols. <i>Acree</i>	41,	457
XII. On the mechanism of organic reactions. <i>Acree</i>	48,	352
XIII. On the reaction of ethyl iodide with sodium 1-phenyl-3-thiourazole. <i>Nirdlinger</i> , <i>Rogers</i> and <i>Acree</i>	49,	116
XIV. On the reversible addition of alcohols to nitriles catalyzed by ethylates. I. <i>Marshall</i> and <i>Acree</i>	49,	127
XV. On the reactions of both the ions and the nonionized forms of electrolytes. <i>Acree</i>	49,	345
XVI. On the reactions of both the ions and the nonionized forms of electrolytes. The reversible addition of alcohols to nitriles catalyzed by sodium ethylate. II. <i>Marshall</i> , <i>Harrison</i> and <i>Acree</i> . 49,		369

- XVII. On the reactions of both the ions and the nonionized forms of electrolytes. The reactions of sodium phenolate with methyl iodide and ethyl iodide in absolute ethyl alcohol at 25° and 35°. *Robertson and Acree*..... 49, 474
- studies in:
- The rearrangement of acetylhalogenaminobenzene derivatives into halogen acetanilide derivatives. *Acree and Johnson*..... 37, 410
- I. The catalysis of esters and of imido esters by acids. *Stieglitz*..... 39, 29
- II. The catalysis of imido esters. *Stieglitz*..... 39, 166
- III. The theories of esterification and saponification. *Stieglitz*..... 39, 402
- IV. The catalysis of imido esters. *Derby*..... 39, 437
- V. The catalysis of imido esters. *McCracken*.... 39, 586
- VI. The catalysis of imido esters. *Schlesinger*... 39, 719
- by S. F. Acree," a reply to Julius Stieglitz's "Note on the article entitled 'Studies in. *Acree*... 39, 145
- by S. F. Acree, note on the article entitled "Studies in. *Stieglitz*..... 38, 743
- Catalytic decomposition of hydrogen peroxide and the mechanism of induced oxidations, on the. Together with a note on the nature and function of catalase. *Loevenhart and Kastle*..... 29, 397
- racemization of optically active hydantoin derivatives and related substances as the results of tautomeric change, the. *Dakin*..... 44, 48
- Cells employed in the measurements, the manufacture of the. The relation of osmotic pressure to temperature. *Morse, Holland, Frazer and Mears*.... 45, 91
- for the measurement of osmotic pressure, improvements in. *Morse and Mears*..... 40, 266
- for the measurement of high osmotic pressures, the preparation of. *Morse and Frazer*..... 28, 1
- Cheddar cheese, a contribution to the chemistry of American. *Van Slyke and Hart*..... 29, 371
- — the relation of carbon dioxide to proteolysis in the ripening of. *Van Slyke and Hart*.... 30, 1
- — the relations of some of the salts formed by casein and paracasein with acids to American. *Van Slyke and Hart*..... 28, 411
- and cottage cheese, a study of the artificial digestion of some compounds of casein and paracasein contained in. *Van Slyke and Hart*..... 32, 154
- Cheese and milk, methods for the estimation of the pro-

teolytic compounds contained in. <i>Van Slyke and Hart</i>	29,	150
— ripening as affected by different conditions, chemical changes in. <i>Van Slyke and Hart</i>	31,	45
Chicory, <i>Cichorium intybus</i> , on the color changes occurring in the blue flowers of the wild. <i>Kastle and Haden</i>	46,	315
Chloric acid, a method for the determination of. <i>Hendrixson</i>	32,	242
Chlorides and sulphates, use of the chromates of silver and of barium in the determination of. <i>Andrews</i>	32,	476
Chlorine for use with the blowpipe, a new test for. <i>Nichols</i>	25,	315
— in a solution of carbon tetrachloride and of carbon tetrachloride on metallic oxides, on the action of. <i>Michael and Murphy</i>	44,	365
— derivatives of the hydrocarbons in California petroleum, on the. <i>Mabery and Sieplein</i>	25,	284
— heptoxide, on. <i>Michael and Conn</i>	23,	444
— — and perchloric acid, on the behavior of iodine and bromine towards. <i>Michael and Conn</i>	25,	89
<i>m</i> -Chloro-, <i>m</i> -bromo- and <i>m</i> -iodoanilines, the action of bromine on. Researches on substitution. II. <i>Wheeler and Valentine</i>	22,	266
Chlorobenzene by means of the Friedel and Crafts reaction, the condensation of carbon tetrachloride with. <i>Norris and Twieg</i>	30,	392
Chloroimido acid esters, stereoisomeric: <i>Hilpert</i>	40,	150
The "Beckmann rearrangement." III. <i>Stieglitz and Earle</i>	30,	399
— ketones, stereoisomeric. <i>Peterson</i>	46,	325
Chloroimidoquinones, on. <i>Raiford</i>	46,	417
Chlorophyll and the variable ratio of the two constituents, on the duality of. <i>Jacobson and Marchlewski</i>	47,	221
Chlorosulphonate, on the reactions of ethyl. <i>Willcox</i>	32,	446
Chlorosulphonic acid and of sulphuric acid, esters of. <i>Bushong</i>	30,	212
2-Chloro-1,3,5-triiodobenzene. <i>Green</i>	36,	600
Chromates of barium and of silver in the determination of sulphates and chlorides, use of. <i>Andrews</i>	32,	476
Chromic acid on hydrogen, the action of. <i>Reese</i>	22,	158
Chromium, variable sensitiveness in the colorimetry of. <i>Horn</i>	35,	253
— sulphate, a study of the change from violet to green in solutions of. <i>Graham</i>	48,	145
<i>Cichorium intybus</i> , on the color changes occurring in the blue flowers of the wild chicory, <i>Kastle and Haden</i>	46,	315

- Cinnamic acid, reactions with derivatives of. The reaction between organic magnesium compounds and unsaturated compounds. II. *Kohler* and *Heritage*..... 33, 21
- — and some of its derivatives, the addition of halogens to. *Michael* and *Smith*..... 39, 16
- esters, complex products from. The reaction between organic magnesium compounds and unsaturated compounds. VII. *Kohler* and *Heritage*. 34, 568
- Cinnamylidenacetic acid, reactions with the isomeric methyl esters of. The reaction between organic magnesium compounds and cinnamylidene esters. III. *Reynolds*..... 46, 198
- — and some of its transformation products. *Michael* and *Garner*..... 35, 258
- Cinnamylidene esters, the reaction of organic magnesium compounds with:
- I. Reactions with methyl cinnamylidenemalonate. *Reimer*..... 38, 227
- II. Reactions with methyl α -phenylcinnamylidenacetate. *Reimer* and *Reynolds*..... 40, 428
- III. Reactions with the isomeric methyl esters of cinnamylidenacetic acid. *Reynolds*..... 46, 198
- IV. Reactions with methyl α -methylcinnamylidenacetate. *Reimer* and *Reynolds*..... 48, 206
- Cinnamylidenemalonate, reactions with methyl. The reaction of organic magnesium compounds with cinnamylidene esters. I. *Reimer*..... 38, 227
- Cinnamylidenemalonic acid, the action of light on. *Kohler*..... 28, 233
- — the addition of acid sulphites to. *Kohler*. 31, 243
- Civil-service examination, United States..... 49, 433
- Claisen condensation, influence of solvents in the; catalytic action of ether and of tertiary bases in this reaction and also in the formation of the Grignard reagent (preliminary communication). *Tingle* and *Gorsline*..... 37, 483
- — investigation of the. II. A contribution towards the elucidation of the mechanism of the reaction. *Tingle* and *Gorsline*..... 40, 46
- Coals, the radium content of some Alabama. *Lloyd* and *Cunningham*..... 50, 47
- Cobalt, erbium, neodymium and uranium as affected by temperature and by chemical reagents, the absorption spectra of certain salts of. XXXII. *Jones* and *Strong*..... 45, I, 113

— and other metals, the occlusion of hydrogen by metallic. <i>Baxter</i>	22,	351
— silver and caesium, on double and triple thiocyanates of. <i>Shinn and Wells</i>	29,	474
— zinc and manganese, the use of potassium periodate in the detection of. <i>Benedict</i>	34,	581
— chloride and pyridine, equilibrium in the system: <i>Pearce and Moore</i>	50,	218
Cocaine, a new test for (Note). <i>Schaefer</i>	22,	86
Coerulein and gallein, the constitution of. <i>Orndorff and Brewer</i>	23, 425; 26,	97
Color of compounds of bromine and iodine, on the effect of very low temperatures on the. <i>Kastle</i>	23,	500
— and the composition and constitution of the alkali salts of the nitrophenols, on relations between the. <i>Frazer</i>	30,	309
— changes occurring in the blue flowers of the wild chicory, <i>Cichorium intybus</i> , on the. <i>Kastle and Haden</i>	46,	315
Colorimetry, variable sensitiveness in. <i>Horn and Blake</i>	II, 36, 195; III, 36,	516
— of chromium, variable sensitiveness in the. <i>Horn</i>	35,	253
Combustion of halogen compounds in the presence of copper oxide, the. <i>Robinson</i>	35,	531
— of organic compounds, an electrical method for the. <i>Morse and Taylor</i>	33,	591
Concentrated solutions of electrolytes, on the nature of—hydrates in solution. <i>Jones and Gelman</i>	31,	303
Concentration cells in methyl and ethyl alcohols, some. <i>Wilson</i>	35,	78
Conclusion, in. <i>Remsen</i>	50,	495
Condensed milk by the Babcock test, the estimation of fat in sweetened. <i>Farrington</i>	24,	267
Conductivities, the basicity of acids as determined by their. <i>Schmidt</i>	40,	305
— of certain electrolytes in water, methyl and ethyl alcohols and mixtures of these solvents—relation between conductivity and viscosity. <i>Jones and Carroll</i>	32,	521
— dissociations and temperature coefficients of conductivity between 35° and 80° of solutions of a number of salts and organic acids, the. <i>Clover and Jones</i>	43,	187
— temperature coefficients of conductivity and dissociation of certain electrolytes, the. <i>Hosford and Jones</i>	46,	240

Conductivity in aqueous solutions and on the effect of temperature on dissociation, a study of the temperature coefficients of. <i>Jones and West</i>	34,	357
— of aqueous solutions, the bearing of hydrates on the temperature coefficients of. <i>Jones</i>	35,	445
— of certain salts in methyl and ethyl alcohols at high dilutions, the. <i>Kreider and Jones</i>	46,	574
— of certain salts in water, methyl, ethyl and propyl alcohols, and in mixtures of these salts, a study of the. <i>Jones and Lindsay</i>	28,	329
— of organic acids in aqueous solution, the effect of temperature and dilution on the. <i>White and Jones</i>	42,	520
— of salts in fused mercuric chloride, the electrical. On the molecular condition of salts dissolved in a fused salt. II. <i>Footo and Martin</i>	41,	451
— of solutions of lithium nitrate in ternary mixtures of acetone, methyl alcohol, ethyl alcohol and water, together with the viscosity and fluidity of these mixtures, the. X. <i>Jones and Mahin</i>	41,	433
— of such mixtures, determination of the relative velocities of the ions of silver nitrate in mixtures of the alcohols and water and on the. <i>Jones and Bassett</i>	32,	409
— of such solutions, the lowering of the freezing point of water produced by concentrated solutions of certain electrolytes and the. <i>Jones and Getman</i> .	27,	433
— of such solutions, the relative migration velocities of the ions of silver nitrate in water, methyl alcohol, ethyl alcohol and acetone and in binary mixtures of these solvents, together with the. <i>Jones and Rouiller</i>	36,	427
— and dissociation of certain organic acids at 35°, 50° and 65°, a study of the. <i>Wightman and Jones</i> .	48,	320
— and dissociation of organic acids in aqueous solution at different temperatures, the. <i>White and Jones</i>	44,	159
— <i>Springer and Jones</i>	48,	411
— dissociation and temperature coefficients of conductivity at 35°, 50° and 65° of aqueous solutions of a number of salts, the. <i>West and Jones</i>	44,	508
— dissociation and temperature coefficients of conductivity of certain inorganic salts in aqueous solution, as conditioned by temperature, dilution, hydration and hydrolysis, a study of the. <i>Shaeffer and Jones</i>	49,	207

— and ionization of alcoholic solutions, the limiting. <i>Turner</i>	40,	558
— and ionization of electrolytes in aqueous solutions as conditioned by temperature, dilution and hy- drolysis, the. <i>Jones and Jacobson</i>	40,	355
— temperature coefficients of conductivity and dis- sociation of certain electrolytes in aqueous solution from 0° to 35°, the. Probable inductive action in solution, and evidence for the complexity of the ion. <i>Winston and Jones</i>	46,	368
— temperature coefficients of conductivity and dis- sociation of certain electrolytes in aqueous solution at 35°, 50° and 65°, the. <i>Howard and Jones</i>	48,	500
— temperature coefficients of conductivity, dissocia- tion and dissociation constants of certain organic acids between 0° and 65°. XIV. <i>Smith and Jones</i>	50,	I
— and viscosity in mixed solvents containing gly- cerol. <i>Schmidt and Jones</i>	42,	37
<i>Guy and Jones</i>	46,	131
— and viscosity of solutions of certain salts in mix- tures of acetone with methyl alcohol, with ethyl alcohol and water, the. <i>Jones and Bingham</i>	34,	481
— and viscosity of solutions of certain salts in water, methyl alcohol, ethyl alcohol, acetone and binary mixtures of these solvents, the. V. <i>Jones and McMaster</i>	36,	325
— curves of Kraus at high temperatures, the sig- nificance of the maximum in the. <i>Jones</i>	31,	584
— methods, a study of hydrolysis by. <i>Stieglitz and Derby</i>	31,	449
— and boiling-point methods, the dissociation of electrolytes in nonaqueous solvents as determined by the. <i>Kreider and Jones</i>	45,	282
Conjugated system of double linkages, a comparison of certain acids containing a. <i>Macleod</i>	44,	331
Conrad, Frankland and Wurtz reactions, a criticism of J. U. Nef's views on the; on methyl cyanide as a catalytic reagent. <i>Michael</i>	25,	419
Constant boiling point, a contribution to the study of liquid mixtures of. <i>Ryland</i>	22,	384
Constants, annual tables of.....	48,	554
Contact potential, of the hydrogen electrode and of the calomel electrode, a study of. <i>Loomis and Acree</i> . <i>Myers and Acree</i>	46,	585
	50,	396

Copper by solutions of ferrous salts, the reduction of.		
<i>Biddle</i>	26,	377
— acetate on the hexoses, on aldol, pentaerythrose and the action of. <i>McLeod</i>	37,	20
— complexes of amino acids, peptides and peptones, the. II. Their configuration and relation to the biuret reaction. <i>Kober</i> and <i>Sugiura</i>	48,	383
— sulphate, the crystallization of. <i>Hopkins</i>	25,	413
— — and zinc sulphate, on the mixed crystals of. <i>Foote</i>	26,	418
— — solutions, the action of ammonia upon. <i>Locke</i> and <i>Forssell</i>	31,	268
Cosmolin, vaselin and similar products, composition of commercial. <i>Mabery</i>	33,	291
Correction. <i>Lind</i>	49,	405
Correspondence.....	21,	460
<i>Arey</i>	24,	282
<i>Markownikoff</i>	25,	518
Cottage and cheddar cheese, a study of the artificial digestion of some compounds of casein and paracasein contained in. <i>Van Slyke</i> and <i>Hart</i>	32,	154
Cottonseed oil, investigation of the Halphin color test as to its value for the detection of. <i>Oilar</i>	24,	355
<i>p</i> -Cresol, a further investigation of <i>p</i> -toluenediazonium sulphate and of the action of sulphuric acid on the methyl ether of. <i>Alleman</i>	31,	24
Crystallization as affected by light, water of. I. <i>McKee</i> and <i>Berkheiser</i>	40,	303
Crystals by instantaneous photomicrography, a study of growing. <i>Richards</i> and <i>Archibald</i>	26,	61
Crystal violet and rosaniline hydrochloride in aqueous solution, on the decomposition of the leucosulphonic acids of. <i>Kastle</i>	42,	293
Cuprammonium salts, on some:		
<i>Horn</i>	35, 271; 37,	467
IV. Cuprammonium sulphate. <i>Horn</i>	38,	475
VI. <i>Horn</i> and <i>Graham</i>	39,	505
V. <i>Horn</i>	39,	184
— sulphates, on some. <i>Horn</i> and <i>Taylor</i>	32,	253
Cuprous barium caesium thiocyanate, $\text{Cs}_2\text{BaCu}_2(\text{SCN})_7$. <i>Wells</i>	28,	273
— caesium thiocyanate, $\text{CsCu}(\text{SCN})_2$. <i>Roberts</i>	28,	262
— nickel caesium and the silver nickel caesium thiocyanates, the. <i>Roberts</i> and <i>Wells</i>	28,	277
— strontium caesium and silver strontium caesium thiocyanates. <i>Merriam</i>	28,	274

Curcumin. <i>Jackson and Clarke</i>	45,	48
Cyanic acid to epichlorohydrin, the addition of. Studies in the oxazole series. II. <i>Johnson and Guest</i>	44,	453
Cyanide, the electromotive force of metals in solutions of. <i>Christy</i>	27,	354
— lithium and acetate, methods for the detection of. <i>Benedict</i>	32,	480
Cyanoamides, on the preparation of the. <i>McKee</i>	36,	208
— and ureides of the dialkylhydroxyacetic acids. <i>Clemmensen and Heitman</i>	40,	280
— and ureides of the hydroxy fatty acids. II. <i>Clemmensen and Heitman</i>	42,	319
Cyanobromoacetic ester and substituted benzhydrol der- ivatives, on. <i>Goldthwaite</i>	30,	447
α -Cyanocinnamic acids, reactions with. The reaction be- tween unsaturated compounds and organic mag- nesium compounds. V. <i>Kohler and Reimer</i>	33,	333
α -Cyanocinnamylidenacetic acid, the action of light on esters of. <i>Reimer</i>	45,	417
II. <i>Reimer and Keller</i>	50,	157
Cyanogen iodide as an indicator for acids. <i>Kastle and Clark</i>	30,	87
5-Cyanouracil, synthesis of. Researches on pyrimidines. XLVIII. <i>Johnson</i>	42,	505
Cyclohexane, derivatives of. Reaction between unsatur- ated compounds and organic magnesium com- pounds. XIII. <i>Kohler and Burnley</i>	43,	412
Cytosine, syntheses of oxyaminopyrimidines having the composition of: 6-oxy-2-aminopyrimidine and 2-oxy-6-aminopyrimidine. <i>Wheeler and Johnson</i> ...	29,	492
— or 2-oxy-6-aminopyrimidine from triticonucleic acid, on. <i>Wheeler and Johnson</i>	29,	505
Cytosine-5-carboxamide, synthesis of. Researches on pyrimidines. XXXVI. <i>Wheeler and Johns</i>	40,	233
Cytosine-5-carboxylic acid, synthesis of. Researches on pyrimidines. XXVI. <i>Johnson and Johns</i>	38,	594
DEFINITE proportions through combination of the halogens with finely divided silver, on the experi- mental illustration of the law of. <i>Kastle</i>	45,	396
Dehydromucic acid, on. <i>Hill</i>	25,	439
— — on the reduction of. <i>Hill and Wheeler</i> ...	25,	463
— — and certain of its derivatives, on. <i>Phelps and Hale</i>	25,	445
Desmotropism in the pseudothiohydantoins. <i>Johnson and Ambler</i>	48,	197

Dextrin and starch iodides, on the relation of hydriodic acid and of its salts to the. <i>Hale</i>	28,	438
Diacetyl and benzoyl acetyl peroxides, on the formation, decomposition and germicidal action of. <i>Freer and Novy</i>	27,	161
Diacylpseudothiureas to isomeric symmetrical derivatives, on the molecular rearrangement of unsymmetrical. <i>Johnson and Jamieson</i>	35,	297
Dialkylhydroxyacetic acids, ureides and cyanoamides of the. <i>Clemmensen and Heitman</i>	40,	280
α,β -Dialkylhydroxylamines, two isomeric. I. α -Methyl- β -ethylhydroxylamine. II. β -Methyl- α -ethylhydroxylamine. <i>Jones</i>	38,	253
Dialkylureas, the oxygen ethers of the. <i>McKee</i>	42,	1
<i>o</i> -Diazobenzoic acid with sulphurous acid and copper powder, reaction of. <i>Henderson</i>	21,	206
Diazocaffeine. <i>Gomberg</i>	23,	51
Diazonium salts with phenols, the decomposition of. <i>Norris, Macintire and Corse</i>	29,	120
<i>p</i> -Dibromobenzene, on the dinitrodibromobenzenes derived from. II. <i>Jackson and Calhane</i>	28,	451
Dibromobenzenesulphonamide by means of concentrated sulphuric acid, on the conversion of benzenesulphondibromoamide into. <i>Kastle</i>	45,	219
Di- <i>p</i> -bromobenzylcyanoamide, note on the constitution of. <i>Jackson and Fuller</i>	23,	494
3,5-Dibromophenylalanine. Researches on aminohalogen acids. IV. <i>Wheeler and Clapp</i>	40,	337
<i>o,p</i> -Dibromo- <i>o</i> -phenylenediamine, on. <i>Jackson and Russe</i>	35,	148
2,6-Dibromo- <i>p</i> -phenylenediamine, the action of bromine on. <i>Jackson and Calhane</i>	31,	209
<i>m</i> -Dibromoquinone, the conversion of tribromophenol bromide into. The constitution of tribromophenol bromide. The preparation and properties of tribromophenyl sulphonate. <i>Speyer</i>	27,	40
2,5-Dicarbethoxy-3,4-diketotetrahydrofurfuran, on. Researches on furfurans. I. <i>Johnson and Johns</i>	36,	290
Dicarbonylcuprous chloride, a contribution to our knowledge of. <i>Jones</i>	22,	287
Dichloroacetyl phosphide. <i>Evans and Vanderkleed</i>	27,	142
Dichlorourea is produced, the action of chlorine upon urea whereby a. <i>Chattaway</i>	41,	83
Diethylisopropylmethane. <i>Clarke</i>	39,	572
Diffusion, the fractionation of crude petroleum by capillary. <i>Gilpin and Cram</i>	40,	495

— of crude petroleum through fuller's earth, the. <i>Gilpin and Bransky</i>	44,	251
Digestion of some compounds of casein and paracasein contained in cottage and cheddar cheese, a study of the artificial. <i>Van Slyke and Hart</i>	32,	154
β -Dihydrofurfuran- α,α' -dicarboxylic acid, on the optically active isomers of. <i>Hill and Russe</i>	33,	372
Dihydrohydroxycampholytic acid and racemic campholytic acid, racemic. Camphoric acid. X. <i>Noyes and Blanchard</i>	26,	281
Diiodotyrosine (iodogorgoic acid), the position of the iodine atoms in. Researches on aminohalogen acids. VIII. <i>Wheeler and Johns</i>	43,	11
Diketotetrabromocyclopentene. <i>Jackson and Flint</i>	43,	135
Dilution of some salts, thermal effects of the. <i>Dunnington and Hoggard</i>	22,	207
Dilution, hydrolysis and temperature, the conductivity and ionization of electrolytes in aqueous solutions as conditioned by. <i>Jones and Jacobson</i>	40,	355
— and by temperature, the absorption spectra of solutions as affected by. A quantitative study of absorption spectra by means of the radiomicrometer. <i>Jones and Guy</i>	49,	I
— and temperature on the conductivity of organic acids in aqueous solution, the effect of. <i>White and Jones</i>	42,	520
— temperature, hydration and hydrolysis, a study of the conductivity, dissociation and temperature coefficients of conductivity of certain inorganic salts in aqueous solution as conditioned by. <i>Shaeffer and Jones</i>	49,	207
2,4-Dimethyl-3-aminobenzoic acid. Alkylation of aromatic amino acids. V. <i>Wheeler and Hoffman</i> ...	45,	436
Dimethylaniline, bromine addition compounds of. <i>Jackson and Clarke</i>	34,	261
— on the action of bromine on. II. <i>Jackson and Clarke</i>	36,	409
Dimethyldianthracene; a polymeric modification of β -methylanthracene. <i>Orndorff and Megraw</i>	22,	152
1,4-Dimethyluracil and of the monobenzyl derivatives of 4-methyluracil, the preparation of. Researches on pyrimidines. XLIV. <i>Wheeler and McFarland</i> ...	42,	101
Dinitrobenzenesulphonic acid, on symmetrical. <i>Jackson and Earle</i>	29,	216
4,6-Dinitro-2-bromo-1,3,5-triodobenzene and some of its derivatives. <i>Jackson and Bigelow</i>	46,	549

Dinitro- <i>m</i> -dibromobenzene, certain derivatives of. <i>Jackson</i> and <i>Cokoe</i>	26,	I
α -Dinitrodibromobenzene, on the constitution of. <i>o</i> -Dinitro- <i>p</i> -dibromobenzene. <i>Calhane</i> and <i>Wheeler</i>	22,	449
Dinitrodibromobenzenes derived from <i>p</i> -dibromobenzene, on the. II. <i>Jackson</i> and <i>Calhane</i>	28,	451
2,4-Dinitrophenylethylamine and 4-nitrophenylethylamine, syntheses of. Researches on amines. II. <i>Johnson</i> and <i>Guest</i>	43,	310
Dinitrotetrachlorobenzene, on. <i>Jackson</i> and <i>Carlton</i>	31,	360
Dinitrotribromobenzene, on the action of sodium ethylate on. <i>Jackson</i> and <i>Koch</i>	21,	510
— and trinitrotribromobenzene, on the action of sodium sulphite on. <i>Jackson</i> and <i>Earle</i>	26,	46
2,4-Dinitro-1,3,5-triiodobenzene, on certain derivatives of the. <i>Jackson</i> and <i>Langmaid</i>	32,	297
2,8-Dioxypurine. On an isomer of xanthine. Researches on purines. II. <i>Johns</i>	45,	79
2,6-Dioxypyrimidines, the action of nitric acid on. Oxy-nitrohydrothymine. Researches on pyrimidines. XXX. <i>Johnson</i>	40,	19
1,5-Diphenyl-3-aminopyrro- α,β' -diazole derivatives: On the action of phenylhydrazine on benzoylpseudothioureas. <i>Wheeler</i> and <i>Beardsley</i>	29,	73
On the action of phenylhydrazine on benzoylpseudocoureas. <i>Johnson</i> and <i>Menge</i>	32,	358
Diphenylbenzenylaminoamidine and phenylbenzenylphenylaminoamidine: on isomerism in the amidine series. <i>Wheeler</i> and <i>Johnson</i>	31,	577
Diphenylcarbamyl thiocyanate. Researches on thiocyanates and isothiocyanates. VII. <i>Johnson</i> and <i>Levy</i> .	38,	456
Diphenyldiketopiperazine, formation of indigo from. <i>Kuhara</i> and <i>Chikasige</i>	24,	167
Diphenylstyrylcarbinol. <i>Kohler</i>	29,	352
Diphenylsulphone- <i>o</i> -carboxylic acid and related compounds. <i>Weedon</i> and <i>Doughty</i>	33,	386
1,4-Diphenyl-5-thionurazole and 1,4-diphenyl-5-thiolurazole, on the rearrangement of the tautomeric salts of. Urazoles. XVII. <i>Nirdlinger</i> and <i>Acree</i>	44,	219
Displacements in aqueous solutions, on reversible metallic. <i>Smith</i>	37,	506
Dissociation, a study of the temperature coefficients of conductivity in aqueous solutions and on the effect of temperature on. <i>Jones</i> and <i>West</i>	34,	357
— as measured by freezing-point lowering and by conductivity—bearing on the hydrate theory. The		

approximate composition of the hydrates formed by a number of electrolytes. XIX. Jones and Pearce.....	38,	683
— of certain acids, bases and salts at different temperatures, the. Jones and Douglas.....	26,	428
— of electrolytes in nonaqueous solvents as determined by the conductivity and boiling-point methods, the. Kreider and Jones.....	45,	282
— and conductivity of certain organic acids at 35°, 50° and 65°, a study of the. Wightman and Jones.	48,	320
— and conductivity of organic acids in aqueous solution at different temperatures, the. White and Jones.....	44,	159
Springer and Jones.....	48,	411
— and conductivity of organic acids in aqueous solution between zero and 35°, a study of the. Wightman and Jones.....	46,	56
— conductivities and temperature coefficients of conductivity of certain electrolytes, the. Hosford and Jones.....	46,	240
— conductivity and temperature coefficients of conductivity at 35°, 50° and 65° of aqueous solutions of a number of salts, the. West and Jones..	44,	508
— conductivity and temperature coefficients of conductivity of certain electrolytes in aqueous solutions between 0° and 35°, the. Probable inductive action in solution and evidence for the complexity of the ion. Winston and Jones.....	46,	368
— conductivity and temperature coefficients of conductivity of certain electrolytes in aqueous solution at 35°, 50° and 65°, the. Howard and Jones.	48,	500
— conductivity and temperature coefficients of conductivity of certain inorganic salts in aqueous solution, as conditioned by temperature, dilution, hydration and hydrolysis, a study of the. Shaeffer and Jones.....	49,	207
— dissociation constants, conductivity and temperature coefficients of conductivity of certain organic acids between 0° and 65°. Smith and Jones.....	50,	I
— and equilibrium, notes on lecture experiments to illustrate. Stieglitz.....	23,	404
Dissociations, conductivities and temperature coefficients of conductivity between 35° and 80° of solutions of a number of salts and organic acids, the. Clover and Jones.....	43,	187

Dissolver, a. <i>Hopkins</i>	22,	407
Distillation, an apparatus for continuous vacuum. <i>Mabery</i>	29,	171
Disulphones and ketosulphones. <i>Kohler and MacDonald</i>	22,	219
Dodecane and isohexane, a new. <i>Clarke and Shreve</i>	35,	513
Dogwood, on the constituents of Jamaica. <i>Freer and Clover</i>	25,	390
Double ammonium lead chlorides, the. <i>Foote and Levy</i> ..	37,	119
— caesium and mercuric chlorides and their solubility, on the. <i>Foote</i>	30,	339
— — lead bromides, the. <i>Foote</i>	37,	124
— chlorides of ferric and ferrous iron with some aromatic bases. <i>McKenzie</i>	50,	308
— halides of antimony with aniline and the toluidines, the. <i>Higbee</i>	23,	150
— — of cadmium with the methylamines and tetramethylammonium, some. <i>Ragland</i>	22,	417
— — of tin with the aliphatic amines and with tetramethylammonium, some. <i>Cook</i>	22,	435
— — of tin with the organic bases, notes on. <i>Richardson and Adams</i>	22,	446
— halogen salts, generalizations on. <i>Wells</i>	26,	389
— — the composition of. <i>Wells</i>	31,	395
— linkages, a comparison of certain acids containing a conjugated system of. <i>Macleod</i>	44,	331
— nitrates, investigations on. <i>Wells</i>	26,	275
— oxalates, on certain alleged. <i>Foote and Andrew</i>	34,	164
— salt of potassium and barium nitrates, on a. <i>Wallbridge</i>	30,	154
— salts, contribution to our knowledge of aqueous solutions of:		
II. Chlorides. <i>Jones and Ota</i>	22,	5
III. Chlorides and bromides. <i>Jones and Knight</i> ..	22,	110
IV. Iodides, cyanides, nitrates and sulphates. <i>Jones and Caldwell</i>	25,	349
— — on some complex compounds of thallium and the constitution of. <i>Cushman</i>	26,	505
— — on some isomeric halogen compounds of thallium, and the constitution of. I. <i>Cushman</i> ..	24,	222
— — as compared with the conductivities of mixtures of their constituents, the conductivities of some. <i>Lindsay</i>	25,	62
— — of lead, some. <i>White</i>	31,	1
— — of mercuric chloride with the alkali chlorides and their solubility, the. <i>Foote and Levy</i>	35,	236
— and triple salts of caesium nitrite with the nitrites		

of silver, the alkali earths and lead, on some.		
<i>Jamieson</i>	38,	614
— sulphates of thallic thallium and caesium, on some. <i>Locke</i>	27,	280
— — of the formula $M'_2M''(SO_4)_2 \cdot 6H_2O$, the solubility of. The periodic system and the properties of inorganic compounds. IV. <i>Locke</i>	27,	455
— and triple thiocyanates, on some. <i>Wells</i>	28,	245
— and triple thiocyanates of caesium, cadmium and silver, on the. <i>Wells</i>	30,	144
— and triple thiocyanates of caesium, cobalt and silver, on. <i>Shinn and Wells</i>	29,	474
Drying and purifying organic liquids by wiping, a method for. <i>Jackson and Fiske</i>	44,	438
ELECTRICAL conductivity of salts in fused mercuric chloride, the. On the molecular condition of salts dissolved in a fused salt. II. <i>Foote and Martin</i> ..		
— induction in chemical reactions. <i>Winston</i>	41,	451
Electrically controlled gas regulator, an. <i>Reid</i>	41,	148
Electrical method for the combustion of organic compounds, an. <i>Morse and Taylor</i>	33,	591
— — for the simultaneous determination of hydrogen, carbon and sulphur in organic compounds, an. <i>Morse and Gray</i>	35,	451
— — of Morse and Gray for the simultaneous determination of carbon, hydrogen and sulphur in organic compounds, notes on the. <i>Reid</i>	47,	416
Electric drying oven, an. <i>Richards</i>	22,	45
— furnace and various other electric heating appliances for laboratory use, a new. <i>Morse and Frazer</i>	32,	93
— osmose (preliminary communication). <i>Frazer and Holmes</i>	40,	319
Electro-affinity as a basis for the systematization of inorganic compounds. <i>Locke</i>	27,	105
<i>Abegg and Bodländer</i>	28,	220
— — theory of Abegg and Bodländer, the. <i>Locke</i>	28,	403
Electrolytes, on the nature of concentrated solutions of— hydrates in solution. <i>Jones and Getman</i>	31,	303
Electromotive force, studies of. IV. A study of the hydrogen electrode, of the calomel electrode and of contact potential. <i>Myers and Acree</i>	50,	396
Electromotive force of metals in solutions of cyanide, the. <i>Christy</i>	27,	354

- Electronic conception of valence, applications of the. I.
 Reactions among certain classes of compounds
 containing nitrogen. II. The Beckmann rear-
 rangement. *Jones*..... 50, 414
- Elements and their graphic representation, a study of the
 periodic relations of the. *Helix chemica*. *Emerson* 45, 160
- Elemi*, the terpenes obtained from individual samples of
 the resin, Manila. *Clover*..... 39, 613
- Emery from Virginia, analysis of. *Miller*..... 22, 212
- Entropy, stereoisomerism and the law of. *Michael*..... 39, 1
- Enzymes, formation of acids by. *Hinkins*..... 33, 164
- hydrolysis of triacetylglucose by. *Acree* and
Hinkins..... 28, 370
- the reducing. *Pozzi-Escot*..... 29, 517
- Epichlorohydrin, the addition of cyanic acid to. Studies
 in the oxazole series. II. *Johnson and Guest*..... 44, 453
- Equilibrium and dissociation, notes on lecture experiments
 to illustrate. *Stieglitz*..... 23, 404
- Erbium, neodymium, uranium and cobalt as affected by
 temperature and by chemical reagents, the absorption
 spectra of certain salts of. XXXII. *Jones* and
Strong..... 45, 1, 113
- potassium and rubidium compounds, experiments
 on the radioactivity of. *Strong*..... 42, 147
- Errata..... 121, 100,
 460, 23, 532; 25, 172, 518; 28, 494; 29, 88; 33, 647;
 34, 625; 35, 570; 36, 644; 37, 681; 38, 770; 39, 822;
 40, 216, 606; 41, 572; 42, 374, 588; 43, 586; 44, 304,
 596; 45, 634; 46, 676; 47, 360; 48, 382, 575; 49, 548; 50,
 514
- Esterification, studies in:
 The esterification of thiolbenzoic acid by alcohol
 and of benzoic acid by mercaptan. *Reid*..... 43, 489
- IV. The interdependence of limits as exemplified
 in the transformation of esters. *Reid*..... 45, 479
- of benzamide and the preparation of N-substituted
 benzamides, the. *Reid*..... 45, 38
- or alcoholysis of acid amides, the. *Reid*..... 41, 483
- and saponification, the theories of. Studies in
 catalysis. III. *Stieglitz*..... 39, 402
- Esters, the interdependence of limits as exemplified in the
 transformation of. Studies in esterification. IV.
Reid..... 45, 479
- from amides and alcohols, on the formation of.
 Studies in catalysis. Catalysis. X. *Acree*..... 41, 457
- and of imido esters by acids, the catalysis of.
 Studies in catalysis. I. *Stieglitz*..... 39, 29

Ether, an apparatus for the extraction of liquids with. <i>Fiske</i>	41,	510
Ethyl and methyl alcohols, on the formation of alcoholates by certain salts in solution in. XV. <i>Jones and McMaster</i>	35,	316
— and methyl alcohols, some concentration cells in. <i>Wilson</i>	35,	78
— and methyl alcohols at high dilutions, the conductivity of certain salts in. <i>Kreider and Jones</i> ...	46,	574
— alcohol, methyl alcohol, acetone and water, together with the viscosity and fluidity of these mixtures, the conductivity of solutions of lithium nitrate in ternary mixtures of. X. <i>Jones and Mahin</i> .	41,	433
— — methyl alcohol, acetone, water and binary mixtures of these solvents, the conductivity of solutions of certain salts in. V. <i>Jones and McMaster</i>	36,	325
— — methyl alcohol, acetone and water and in binary mixtures of these solvents, together with the conductivity of such solutions, the relative migration velocities of the ions of silver nitrate in. <i>Jones and Rouiller</i>	36,	427
— and methyl alcohols and mixtures of these solvents, velocity coefficients of the reaction between ethyl iodide and silver nitrate in. <i>Pearce and Weigle</i>	48,	243
— methyl and propyl alcohols and water and in mixtures of these solvents, a study of the conductivity of certain salts in. <i>Jones and Lindsay</i>	28,	329
— alcohol, with methyl alcohol and water, the conductivity and viscosity of solutions of certain salts in mixtures of acetone with. <i>Jones and Bingham</i> ...	34,	481
— and methyl alcohols and water and mixtures of these solvents, a study of the conductivities of certain electrolytes in—relation between conductivity and viscosity. <i>Jones and Carroll</i>	32,	521
Ethylates, on the reversible addition of alcohols to nitriles catalyzed by. I. Catalysis. XIV. <i>Marshall and Acree</i>	49,	127
Ethylcoumaric and ethylcoumarinic acids, the isomerism of. <i>Michael and Lamb</i>	36,	552
Ethylene and trimethylene cyanides, on the condensation of oxalic ethyl ester with. <i>Michael</i>	30,	156
— dibromide on <i>p</i> -nitrosodialkylanilines, the action of. <i>Torrey</i>	34,	475
— — on <i>p</i> -nitrosodimethylaniline, on the action of. <i>Torrey</i>	28,	107

Ethyl ether, note on the action of liquid hydriodic acid on.		
<i>Cottrell and Rogers</i>	21,	64
— iodide with sodium 1-phenyl-3-thiourazole, on the reaction of. Catalysis. XIII. <i>Nirdlinger, Rogers and Acree</i>	49,	116
— — and methyl iodide in absolute ethyl alcohol at 25° and 35°, the reactions of sodium phenolate with. Catalysis. XVII. On the reactions of both the ions and nonionized forms of electrolytes. <i>Robertson and Acree</i>	49,	474
— — and silver nitrate in ethyl and methyl alcohols and mixtures of these solvents, velocity coefficients of the reaction between. <i>Pearce and Weigle</i>	48,	243
Ethyl- and methylisoureas: on the oxygen ethers of the ureas. <i>McKee</i>	26,	209
Extraction of liquids with ether, an apparatus for the. <i>Fiske</i>	41,	510
— apparatus, an. <i>Roberts</i>	43,	418
— — a simple fat. <i>Fraps</i>	37,	85
Extractor, a multiple fat. <i>Penny</i>	24,	242
— for use with large quantities of a solid, a modification of Scheibler's. <i>Jackson and Clarke</i>	42,	287
— for use with small quantities of material, an. <i>Jackson and Zanetti</i>	38,	461
FAT in sweetened condensed milk by the Babcock test, the estimation of. <i>Farrington</i>	24,	267
— extraction apparatus, a simple. <i>Fraps</i>	37,	85
— extractor, a multiple. <i>Penny</i>	24,	242
Fats, on the rancidity of. <i>Nagel</i>	23,	173
Fehling's solutions on galactose, on the action of. <i>Ander-son</i>	42,	401
— — on malt sugar, on the action of. <i>Lewis</i>	42,	301
Ferric caesium thiocyanate. <i>Wallbridge</i>	28,	256
— and ferrous iron with some aromatic bases, double chlorides of. <i>McKenzie</i>	50,	308
Ferrous iodide. <i>Jackson and Derby</i>	24,	15
— iron with permanganate in the presence of hydrochloric acid, the titration of. <i>Baxter and Frevert</i> ..	34,	109
— and ferric iron with some aromatic bases, double chlorides of. <i>McKenzie</i>	50,	308
— salts, the reduction of copper by solutions of. <i>Biddle</i>	26,	377
— — and other reducing agents: and a method for determining hydrogen peroxide. <i>Mathewson and Calvin</i>	36,	113

Fluidity and vapor pressure. XIII. <i>Bingham</i>	47,	185
— and viscosity. <i>Bingham</i>	35, 195; 40, 277; 43,	287
— and viscosity of matter in the three states of aggregation and the molecular weight of solids. X. <i>Bingham</i>	45,	264
— and viscosity of suspensions of finely-divided solids in liquids, the. <i>Bingham</i> and <i>Durham</i>	46,	278
— and viscosity of these mixtures, the conductivity of solutions of lithium nitrate in ternary mixtures of acetone, methyl alcohol, ethyl alcohol and water, together with the. X. <i>Jones</i> and <i>Mahin</i>	41,	433
Fluorescence, a study of <i>o</i> -amino- <i>p</i> -sulphobenzoic acid with special reference to its. <i>Kastle</i>	45,	58
— a study of <i>o</i> -amino- <i>p</i> -sulphobenzoic acid and its derivatives, with special reference to their. II. <i>Kastle</i> and <i>Haden</i>	46,	508
Formaldehyde color test for proteids, a. I. <i>Acree</i>	37,	604
Formate and diethyl oxalate with some pyrimidinethioglycollates, the condensation of ethyl. Researches on pyrimidines. LIII. <i>Johnson</i> and <i>Shepard</i>	46,	345
Formhydroxamic acid and the possible existence of esters of fulminic acid, on derivatives of. <i>Biddle</i> , 33, 60; 35,		346
Formic acid, anhydrous (preliminary paper). <i>Garner</i> , <i>Saxton</i> and <i>Parker</i>	46,	236
— aldehyde as a product of the partial combustion of organic compounds, on the importance of. <i>Muliken</i> , <i>Brown</i> and <i>French</i>	25,	111
Formimido ethyl ester, on the preparation of. <i>Hill</i> and <i>Black</i>	31,	207
Frankland, Wurtz and Conrad reactions, a criticism of J. U. Nef's views on; on methyl cyanide as a catalytic reagent. <i>Michael</i>	25,	419
Freezing point of water produced by certain acids and salts, on a minimum in the molecular lowering of the. <i>Chambers</i> and <i>Frazer</i>	23,	512
— — of water produced by concentrated solutions of certain electrolytes and the conductivity of such solutions, the lowering of the. <i>Jones</i> and <i>Getman</i>	27,	433
— — lowerings produced by chlorides and bromides of the alkaline earths, on some abnormal. <i>Jones</i> and <i>Chambers</i>	23,	89
Friction in the bomb calorimeter. <i>Roesler</i>	44,	80
Friedel and Crafts reaction, the condensation of carbon tetrachloride with chlorobenzene by means of the. <i>Norris</i> and <i>Twieg</i>	30,	392

- and Crafts reaction, the condensation of carbon tetrachloride with halogen derivatives of benzene by means of the. *Norris and Green*..... 26, 492
- and Crafts reaction with chlorides of unsaturated acids, the. *Kohler, Heritage and Burnley*..... 44, 60
- Fuller's earth, fractionation of California petroleum by diffusion through. *Gilpin and Schneeberger*..... 50, 59
- — the diffusion of crude petroleum through. *Gilpin and Bransky*..... 44, 251
- Fulminic acid, on derivatives of formhydroxamic acid and the possible existence of esters of. *Biddle*, 33, 60; 35, 346
- Fumaric acid, the nitrile of. *Keiser and Kessler*..... 46, 523
- and maleic acids from the acetylene diiodides, the synthesis of. *Keiser and McMaster*..... 46, 518
- acid and the preparation of methyl maleate, on the nitrile of. *Keiser and McMaster*..... 49, 81
- Fungi and microorganisms, ammonium sulphocyanate and thiourea as sources of nitrogen to. *Kastle and Elvove*..... 31, 550
- Furfuran, on certain sulphamido derivatives of. *Hill and Sylvester*..... 32, 185
- group, Grignard syntheses in the. *Hale, McNally and Pater*..... 35, 68
- Furfurans, researches on. I. On 2,5-dicarbethoxy-3,4-diketotetrahydrofurfuran. *Johnson and Johns*... 36, 290
- Furimido methyl ester, *p*-tolenylimido methyl ester and β -naphthylimido ethyl ester, experiments with. *Atwater*..... 23, 145
- Furnace and various other electric heating appliances for laboratory use, a new electric. *Morse and Frazer*. 32, 93
- Furoylacetic ester and the furylpyrazolones. III. *Torrey and Zanetti*..... 44, 391
- Fused salt, on the molecular conditions of salts dissolved in a:
- Foote and Levy*..... 37, 494
- II. The electrical conductivity of salts in fused mercuric chloride. *Foote and Martin*..... 41, 451
- GALACTOSE, on the action of Fehling's solution on. *Anderson*..... 42, 401
- d*-Galactose and *d*-glucose, on the action of normal barium hydroxide on. *Upson*..... 45, 458
- Gallein and coerulein, the constitution of. *Orndorff and Brewer*..... 23, 425; 26, 97
- Gases at constant flow and of high efficiency, apparatus for generating. *Koenig*..... 24, 373

Gas generator, a convenient (Note). <i>Bird</i>	28,	492
— regulator, an electrically controlled. <i>Reid</i>	41,	148
Germicidal action of potassium permanganate, the. <i>Gardner and King</i>	35,	144
Glass, some effects of sunlight upon colorless. <i>Gortner</i> ...	39,	157
Glucose, the osmotic pressure and the depression of the freezing points of solutions of. <i>Morse, Frazer and Hopkins</i>	36,	I
— <i>Morse, Frazer and Lovelace</i>	37,	324
<i>d</i> -Glucose in alkaline solution by air as well as by hydrogen peroxide, on the oxidation of. <i>Glattfeld</i>	50,	135
— and <i>d</i> -galactose, on the action of normal barium hydroxide on. <i>Upson</i>	45,	458
Glucose solutions in the vicinity of the freezing point of water, the osmotic pressure of. <i>Morse, Frazer and Rogers</i>	37,	558
— — at 10°, the osmotic pressure of. <i>Morse and Holland</i>	40,	I
Glutaric acids, a contribution to the chemistry of the aromatic. <i>Avery</i>	28,	48
Glycerol, conductivity and viscosity in mixed solvents containing. XI. <i>Schmidt and Jones</i>	42,	37
— <i>Guy and Jones</i>	46,	131
Gold halides on. <i>Lengfeld</i>	26,	324
Gooch crucibles, note on the preparation and the use of asbestos for. <i>Kober</i>	41,	430
Great Plains region, studies on the soils of the northern portion of the:		
The second steppe. <i>Alway</i>	36,	580
The third steppe. <i>Alway and Gortner</i>	37,	I
The distribution of carbonates on the second steppe. <i>Alway and McDole</i>	37,	275
Nitrogen and humus. <i>Alway and Trumbull</i>	40,	147
Grignard reagent, influence of solvents in the Claisen condensation; catalytic action of ether and of tertiary bases in this reaction and in the formation of the (preliminary communication). <i>Tingle and Gorsline</i>	37,	483
— syntheses in the furfuran group. <i>Hale, McNally and Pater</i>	35,	68
Growing crystals by instantaneous photomicrography, a study of. <i>Richards and Archibald</i>	26,	61
Guanidine and urea with the esters of allylmalonic and some alkyl-substituted allylmalonic acids, the condensation of. Researches on pyrimidines. LIV. <i>Johnson and Hill</i>	46,	537

Guanidines, on the aromatic. <i>Alway and Vile</i>	28,	292
— on the preparation of aromatic. <i>Alway and Vail</i>	28,	158
HALIDES, the action of potassium thiocyanate on primary. Researches on pyrimidines. LVII. <i>Johnson and Hill</i>	48,	296
Halogen by the nitro group, the replacement of. <i>Raiford and Heyl</i>	I, 43, 393; II, 44,	209
Halogenacetanilide derivatives, the rearrangement of acetylhalogenaminobenzene derivatives into: studies in catalysis. <i>Acree and Johnson</i>	37,	410
Halogen compounds in the presence of copper oxide, on the combustion of. <i>Robinson</i>	35,	531
— derivatives of benzene by means of the Friedel and Crafts reaction, the condensation of carbon tetrachloride with. <i>Norris and Green</i>	26,	492
Halogen- and mercaptopyrimidines, the action of aqueous and alcoholic ammonia and aniline on some. Researches on pyrimidines. X. <i>Johnson and Johns</i> ..	34,	175
Halogens with finely divided silver, on the experimental illustration of the law of definite proportions through combination of the. <i>Kastle</i>	45,	396
α -, β - and γ -Halogen-substituted fatty acids, the rate of action of water on certain. <i>DeBarr</i>	22,	333
Halphin color test as to its value for the detection of cottonseed oil, investigation of the. <i>Oilar</i>	24,	355
Heating appliances for laboratory use, a new electric furnace and various other electric. <i>Morse and Frazer</i> .	32,	93
Helix chemica. A study of the periodic relations of the elements and their graphic representation. <i>Emerson</i> .	45,	160
Heptachloropyrocatechyl- <i>o</i> -quino hemiether, the action of nitric acid on. <i>Jackson and Kelley</i>	49,	435
Hexabromo- <i>o</i> -quinopyrocatechyl ether, the action of methyl alcohol on. <i>Jackson and Shaffer</i>	34,	460
Hexoses, on aldol, pentaerythrose and the action of copper acetate on the. <i>McLeod</i>	37,	20
— towards hydrogen peroxide in the presence of alkaline hydroxides, as well as of various iron salts, on the behavior of the ordinary. <i>Spoehr</i>	43,	227
High tension electrolysis: a method of measuring high voltage currents. <i>Strong</i>	50,	213
Hoff plaque, van't.....	49,	79
Hübl's reagent, preservation of. <i>Bolling</i>	22,	213
Humus and nitrogen. Studies on the soils of the northern portion of the Great Plains region. <i>Alway and Trumbull</i>	40,	147

Hydantoin derivatives and related substances as the result of tautomeric change, the catalytic racemization of optically active. <i>Dakin</i>	44,	48
Hydantoins, on:		
I. A synthesis of phenylalanine and of tyrosine. <i>Wheeler and Hoffman</i>	45,	368
II. Aldehyde condensation products of phenylthiohydantoins. <i>Wheeler and Brautlecht</i>	45,	446
VI. The action of acylthioncarbamates, acyldithiocarbamates and acylimidodithiocarbonates on α -amino acids. 2-Thiohydantoin. <i>Wheeler, Nicolet and Johnson</i>	46,	456
VIII. The action of bromine on tyrosinehydantoin. <i>Johnson and Hoffman</i>	47,	20
X. The action of potassium thiocyanate on pyrrolidinecarboxylic acid. 2-Thiohydantoin-4-propionic acid. <i>Guest and Johnson</i>	47,	242
XI. A new method of synthesizing N-alkyl derivatives of α -amino acids. Methyltyrosine. <i>Johnson and Nicolet</i>	47,	459
XIV. The action of potassium thiocyanate on asparagine. <i>Johnson and Guest</i>	48,	103
The action of thiocyanates on α -amino acids. <i>Johnson</i>	49,	68
XXI. The action of ammonium and potassium thiocyanates on α -amino acids. <i>Johnson and Nicolet</i>	49,	197
Hydrargyrides of the alkali and alkali earth metals, the: on amalgams. <i>Smith</i>	38,	671
Hydrated salts, as shown by the radiomicrometer, the absorption of light by water changed by the presence of strongly hydrated—new evidence for the solvate theory of solution. <i>Guy, Shaeffer and Jones</i>	49,	265
Hydrates formed by a number of electrolytes in aqueous solutions, together with a brief general discussion of the results thus far obtained, the approximate composition of the. XIII. <i>Jones and Bassett</i>	34,	290
— formed by certain electrolytes in aqueous solutions at different concentrations, the approximate composition of the. <i>Jones and Bassett</i>	33,	534
— in solution—on the nature of concentrated solutions of electrolytes. <i>Jones and Getman</i>	31,	303
— in solutions of certain nonelectrolytes and the nonexistence of hydrates in solutions of organic acids, the existence of. <i>Jones and Getman</i>	32,	308
— on the temperature coefficients of conductivity of aqueous solutions, the bearing of. <i>Jones</i>	35,	445

- Hydrate theory, dissociation as measured by freezing-point lowering and by conductivity—bearing on the. The approximate composition of the hydrates formed by a number of electrolytes. XIX. *Jones and Pearce*..... 38, 683
- Hydrating power, the absorption spectra of certain salts in aqueous solution as affected by the presence of certain other salts with large. XVII. *Jones and Uhler*. 37, 126, 207
- ——— of another salt present in the same solution, the effect of one salt on the. *Jones and Stine*. 39, 313
- Hydration, hydrolysis, temperature and dilution, a study of the conductivity, dissociation and temperature coefficients of conductivity of certain inorganic salts in aqueous solution, as conditioned by. *Shaeffer and Jones*..... 49, 207
- ——— and ionic velocity, ionic. I. *Carroll*..... 36, 594
- Hydriodic acid, the influence of radium on the decomposition of. *Creighton and Mackenzie*..... 39, 474
- ——— on ethyl ether, note on the action of liquid. *Cottrell and Rogers*..... 21, 64
- ——— and of its salts to the starch and dextrin iodides, on the relation of. *Hale*..... 28, 438
- Hydrochloric acid gas dissolved in anhydrous benzene on dry zinc, on the action of. *Falk and Waters*..... 31, 398
- ——— and hydrocyanic acids, the quantitative separation of. *Richards and Singer*..... 27, 205
- Hydrocyanic acid in the presence of sulphocyanic, hydroferrocyanic and hydroferriercyanic acids and their salts, the detection of (Note). *Preiss*..... 28, 240
- ——— to unsaturated compounds, on the addition of (preliminary note). *Cobb*..... 45, 604
- ——— and hydrochloric acids, the quantitative separation of. *Richards and Singer*..... 27, 205
- ——— acid and of mercury, the volumetric determination of. *Andrews*..... 30, 187
- Hydrogen, note on the spectra of. *Richards*..... 21, 172
- ——— the action of chromic acid on. *Reese*..... 22, 158
- ——— the electromotive force of nickel and the effect of occluded. *Schock*..... 41, 208
- ——— by metallic cobalt and other metals, the occlusion of. *Baxter*..... 22, 351
- ——— carbon and sulphur in organic compounds, an electrical method for the simultaneous determination of. *Morse and Gray*..... 35, 451
- ——— carbon and sulphur in organic compounds, notes

on the electrical method of Morse and Gray for the simultaneous determination of. <i>Reid</i>	47,	416
— dioxide, the lowering of the freezing point of aqueous. <i>Jones, Barnes and Hyde</i>	27,	22
— — by sulphuric and acetic acids, the lowering of the freezing point of aqueous. <i>Jones and Murray</i>	30,	205
— — produced by certain salts and acids, the lowering of the freezing point of aqueous. <i>Jones and Carroll</i>	28,	284
— — See hydrogen peroxide.		
— electrode in the measurement of the concentration of hydrogen ions in the presence of organic compounds, on difficulties in the use of the. <i>Desha and Acree</i>	46,	638
— — to the measurement of the hydrolysis of aniline hydrochloride, and the ionization of acetic acid in the presence of neutral salts, the application of the. <i>Loomis and Acree</i>	46,	621
— — of the calomel electrode and of contact potential, a study of the. <i>Loomis and Acree</i>	46,	585
— — <i>Myers and Acree</i>	50,	396
— ions in the presence of organic compounds, on difficulties in the use of the hydrogen electrode in the measurement of the concentration of. <i>Desha and Acree</i>	46,	638
— peroxide, a method of determining: and ferrous salts and other reducing agents. <i>Mathewson and Calvin</i>	36,	113
— — on the oxidation of sulphocyanic acid and its salts by. <i>Kastle and Smith</i>	32,	376
— — the catalytic decomposition of. II. As to the mode of action of hydrogen peroxide as an oxidizing agent and its catalytic decomposition by various substances. <i>Kastle and Loevenhart</i>	29,	563
— — by various substances at high temperatures, on the decomposition of. <i>Kastle and Clarke</i>	26,	518
— — in the presence of alkaline hydroxides, as well as of various iron salts, on the behavior of the ordinary hexoses towards. <i>Spoehr</i>	43,	227
— — upon anhydrides and the formation of organic acid peroxides and peracids, the action of. <i>Clover and Houghton</i>	32,	43
— — and the mechanism of induced oxidations, on the catalytic decomposition of. Together with a note on the nature and function of catalase. <i>Loevenhart and Kastle</i>	29,	396

— — — ozone, etc., on carbon monoxide, the action of. <i>Jones</i>	30,	40
— — — ozone and nitrogen peroxide in gas mixtures, on the detection of. <i>Keiser and McMaster</i> ..	39,	96
— — — See hydrogen dioxide.		
— sulphide, a serviceable generator for. <i>Bradley</i> ..	21,	370
— — — the dissociating power of (Note). <i>Skilling</i>	26,	383
— tetroxide, the existence of. <i>Clover</i>	29,	463
Hydrolysis by conductivity methods, a study of. <i>Stieglitz and Derby</i>	31,	449
— hydration, temperature and dilution, a study of the conductivity, dissociation and temperature coefficients of conductivity of certain inorganic salts in aqueous solution as conditioned by. <i>Shaeffer and Jones</i>	49,	207
— temperature and dilution, the conductivity and ionization of electrolytes in aqueous solutions as conditioned by. <i>Jones and Jacobson</i>	40,	355
Hydroxamic acids, the Beckmann rearrangement of. <i>Jones</i>	48,	1
— — — from hydroxylamine salts of organic acids, the preparation of. <i>Jones and Oesper</i>	42,	515
α -Hydroximido- β -mercaptopropionic acid. The action of hydroxylamine on 4-methyl-6-oxypyrimidine-2-oxalothioglycolic acid. Researches on pyrimidines. LVI. <i>Johnson and Shepard</i>	48,	279
Hydroxyazo compounds, on the nature of the. <i>McPherson</i>	22, 364; 25,	80
— — — the constitution of the. <i>McPherson and Gore</i>	25,	485
— — — and on the two modifications of benzene-4-azoresorcinol, the constitution of the. <i>Orndorff and Thebaud</i>	26,	159
Hydroxy derivatives of benzaldehyde, acetophenone and related substances, the oxidation of. <i>Dakin</i>	42,	477
α -Hydroxydihydro- <i>cis</i> -campholytic acid. <i>Noyes and Shepherd</i>	22,	262
Hydroxy fatty acids, ureides and cyanoamides of the. <i>Clemmensen and Heitman</i>	42,	319
Hydroxylamine and aniline with hydroxy and unsaturated compounds, the reactions of. <i>Tingle</i>	24,	45
— and hydroxylamine hydrochloride, on the reactions of carbonyl compounds with. Catalysis. VII. <i>Acree</i>	39,	300
— compounds, on some. <i>Adams</i>	28,	198

— salts of organic acids, the preparation of hydroxamic acids from. <i>Jones and Oesper</i>	42,	515
Hydroxyl group, phenyl mustard oil as a reagent for the detection of the alcoholic. <i>Orndorff and Richmond</i> .	22,	458
1'-Hydroxy-1-methoxyoctobromo- <i>o</i> -quino-1-phenylene oxide, on the action of acetic anhydride on the. <i>Jackson and Flint</i>	43,	7
<i>o</i> -Hydroxyphenylurethan, on the molecular rearrangement of <i>o</i> -aminophenyl ethyl carbonate to. <i>Ransom</i>	23,	1
5-Hydroxyuracil, sulphur derivatives of: preparation of 5-benzylmercaptouracil and 5-benzylmercaptocytosine. Researches on pyrimidines. XLV. <i>Johnson and Guest</i>	42,	271
— (isobarbituric acid), syntheses of new derivatives of. Researches on pyrimidines. XXXIX. <i>Johnson and Jones</i>	40,	538
IMIDE chlorides, the action of potassium thiocyanate upon some. Researches on pyrimidines:		
IX. <i>Wheeler and Bristol</i>	33,	448
XV. <i>Johnson and McCollum</i>	36,	136
XXXV. <i>Johnson and Storey</i>	40,	131
Imido acid anhydrides, on the molecular rearrangement of. <i>Wheeler and Johnson</i>	30,	24
— esters, on the rearrangement of. <i>Wheeler and Johnson</i>	21,	185
<i>Wheeler</i>	23,	135
— — the catalysis of. Studies in catalysis:		
<i>Stieglitz</i>	39,	166
<i>Derby</i>	39,	437
<i>McCracken</i>	39,	586
<i>Schlesinger</i>	39,	719
— — and of esters by acids, the catalysis of. Studies in catalysis. I. <i>Stieglitz</i>	39,	29
— — and other carbimide derivatives, on the constitution of the salts of. <i>Stieglitz</i>	21,	101
Imidothiobiazoline and urazole derivatives, on some. <i>Wheeler and Statiropoulos</i>	34,	117
Index to volumes XXI-L.....	50,	496
Indicator for acids, cyanogen iodide as an. <i>Kastle and Clark</i>	30,	87
Indicators, on the theories of. <i>Acree</i>	39,	649
— the theory of. <i>Stieglitz</i>	39,	651
— in nature, the wide occurrence of. <i>Fraips</i>	24,	271
— and the reactions of phthaleins and their salts, on the theory of:		

<i>Stieglitz and Acree</i>	39,	528
Phthaleins. II. <i>Acree and Slagle</i>	39,	789
Tautomerism of phthaleins. III. <i>Acree and Slagle</i>	42,	115
Indigo, methyl derivatives of. <i>Kuhara and Chikasige</i> ...	27,	I
— from diphenyldiketopiperazine, formation of. <i>Kuhara and Chikasige</i>	24,	167
Induced oxidations, on the catalytic decomposition of hydrogen peroxide and the mechanism of. Together with a note on the nature and function of catalase. <i>Loevenhart and Kastle</i>	29,	397
Induction in chemical reactions, electrical. <i>Winston</i>	45,	547
Inductive action in solution, and evidence for the complexity of the ion, probable. The conductivity, temperature coefficients of conductivity and dissociation of certain electrolytes in aqueous solution between 0° and 35°. <i>Winston and Jones</i>	46,	368
Intermediate compounds in chemical reactions, a possible method for detecting the presence of. The absorption spectra of solutions. <i>Jones and Strong</i> ...	43,	224
International Association of Chemical Societies (Note)...	46,	116
Inulin, on. <i>Dean</i>	32,	69
Invertase in plants, on the occurrence of. <i>Kastle and Clark</i>	30,	422
Iodine, on a new method for the preparation of pure. <i>Andrews</i>	30,	428
— on pyrocatechol, on the action of chloride of. <i>Jackson and Boswell</i>	35,	519
— on the fatty amines, the composition of nitrogen iodide and the action of. <i>Norris and Franklin</i> ...	21,	499
— and bromine, on the effect of very low temperatures on the color of compounds of. <i>Kastle</i>	23,	500
— and of bromine, on the color of compounds of. <i>Kastle</i>	21,	398
— and potassium iodide to organic compounds containing the carbonyl group, the addition of. <i>Clover</i> .	31,	256
Iodoacetonitrile with silver nitrate, on the reaction of. <i>Loy and Acree</i>	45,	224
<i>m</i> -Iodo-, <i>m</i> -chloro- and <i>m</i> -bromoanilines, the action of bromine on. Researches on substitution. II. <i>Wheeler and Valentine</i>	22,	266
Iodogorgoic acid, note on the synthesis of. <i>Wheeler</i>	38,	356
— — synthesis of. <i>Wheeler and Jamieson</i>	33,	365
— — (diiodotyrosine), the position of the iodine atoms in. Researches on aminohalogen acids. VIII. <i>Wheeler and Johns</i>	43,	11

<i>o</i> -, <i>m</i> - and <i>p</i> -Iodohippuric acids. <i>Johnson and Meade</i>	36,	294
<i>p</i> -Iodophenylalanine. Researches on aminohalogen acids. V. <i>Wheeler and Clapp</i>	40,	458
Ion, probable inductive action in solution and evidence for the complexity of the. The conductivity, tem- perature coefficients of conductivity and dissocia- tion of certain electrolytes in aqueous solution be- tween 0° and 35°. <i>Winston and Jones</i>	46,	368
Ionic velocity and ionic hydration. I. <i>Carroll</i>	36,	594
Ionization and conductivity of alcoholic solutions, the limiting. <i>Turner</i>	40,	558
— and conductivity of electrolytes in aqueous solu- tions as conditioned by temperature, dilution and hydrolysis, the. <i>Jones and Jacobson</i>	40,	355
Ions, a new apparatus for determining the relative veloci- ties of; with some results for silver ions. <i>Mather</i> ..	26,	473
— of silver nitrate in mixtures of the alcohols and water and on the conductivity of such mixtures, determination of the relative velocities of the. <i>Jones and Bassett</i>	32,	409
— of silver nitrate in water, methyl alcohol, ethyl alcohol and acetone and in binary mixtures of these solvents, together with the conductivity of such solutions, the relative migration velocities of the. <i>Jones and Rouiller</i>	36,	427
— and the nonionized forms of electrolytes, on the reactions of both the: Catalysis. XV. <i>Acree</i>	49,	345
The reversible addition of alcohols to nitriles cata- lyzed by sodium ethylate. II. Catalysis. XVI. <i>Marshall, Harrison and Acree</i>	49,	369
The reactions of sodium phenolate with methyl iodide and ethyl iodide in absolute ethyl alcohol at 25° and 35°. Catalysis. XVII. <i>Robertson and Acree</i>	49,	474
Iron by evolution, a rapid method for the determination of total sulphur in. <i>Knight</i>	32,	84
— with permanganate in the presence of hydro- chloric acid, the titration of ferrous. <i>Baxter and Frevert</i>	34,	109
— with some aromatic bases, double chlorides of fer- ric and ferrous. <i>McKenzie</i>	50,	308
— salts, on the behavior of the ordinary hexoses towards hydrogen peroxide in the presence of alkaline hydroxides, as well as of various. <i>Spoehr</i> .	43,	227
Isobarbituric acid (5-hydroxyuracil), syntheses of new		

derivatives of. Researches on pyrimidines.		
XXXIX. Johnson and Jones.....	40,	538
Isohexane and a new dodecane. Clarke and Shreve.....	35,	513
Isonitrosoguaiacol in their relation to the space isomerism of nitrogen, the ethers of. Bridge and Morgan....	22,	484
Isopropionic acid, benzoic acid and benzenesulphonic acid, on some semicarbazide derivatives of. Urazoles.		
IX. Acree.....	37,	361
Isothiocyanates and thiocyanates, researches on:		
Wheeler	26,	345
VII. Diphenylcarbamyl thiocyanate. Johnson and Levy.....	38,	456
VIII. A new class of isothiocyanates. Isothiocy- ano ethers. Johnson and Guest.....	41,	337
Isothiocyano ethers. A new class of isothiocyanates. Researches on thiocyanates and isothiocyanates.		
VIII. Johnson and Guest.....	41,	337
Δ^2 -KETO-R-HEXENE derivatives, some. Garner.....	31,	143
Ketones ($R.CO.CH_3$), a general reaction for the conversion of saturated fatty acids ($R.CH_2.CH_2.COOH$) into.		
Dakin.....	44,	41
— a study of the optical properties of some un- saturated. Getman.....	45,	539
— cyclic. The reaction between unsaturated com- pounds and organic magnesium compounds. XI.		
Kohler.....	37,	369
— on sodium phenyl and the action of sodium on.		
Acree.....	29,	588
— alcohols and aldehydes towards oxidizing agents, on the behavior of. Denis.....	38,	561
— and unsaturated aldehydes, reactions of unsatur- ated. The reaction between unsaturated com- pounds and organic magnesium compounds. I.		
Kohler.....	31,	642
δ -Ketonic acids, unsaturated. Kohler.....	46,	474
Ketonic esters and sulphone chlorides, the reaction between metallic derivatives of. Kohler and MacDonald...	22,	227
δ -Ketonic esters and their derivatives, saturated. Hahn and Allbee.....	49,	171
Ketosulphones and disulphones. Kohler and MacDonald.	22,	219
ω -Ketotetrahydrooxazoles, syntheses of: studies in the oxazole series. Johnson and Langley.....	44,	352
LANTHANUM, a redetermination of the atomic weight of. Jones.....	28,	23

Lauric acid and some of its derivatives. An investigation of the fatty oil contained in the seeds of <i>Lindera benzoin</i> . <i>Caspari</i>	27,	291
Lead, a study of the reactions involved in the formation of certain complex salts of. <i>White and Nelson</i>	35,	227
— some double salts of. <i>White</i>	31,	1
— from manganese by electrolysis, separation of. <i>Linn</i>	29,	82
— silver and the alkali earths, on some double and triple salts of caesium nitrite with the nitrites of. <i>Jamieson</i>	38,	614
— and tellurium, the alloys of. <i>Fay and Gillson</i> ..	27,	81
— amalgams, on the nature of. <i>Fay and North</i> ...	25,	216
— ammonium chlorides, the double. <i>Foote and Levy</i>	37,	119
— caesium bromides, the double. <i>Foote</i>	37,	124
— — and lead potassium thiocyanates, the. <i>Wallbridge and Wells</i>	28,	258
— chloride and lead acetate in acetic acid and water solutions, reactions between. <i>White</i>	35,	217
— silicates:		
Thermal analysis of the system $PbO-SiO_2$. <i>Cooper, Shaw and Loomis</i>	42,	461
II. Optical and thermal analysis of the system $PbO-SiO_2$. <i>Cooper, Kraus and Klein</i>	47,	273
— sulphate in ammonium acetate, solubility of. <i>Long</i>	22,	217
Lemon-grass, contributions to our knowledge of. <i>Stiehl</i> ..	21,	67
Leucosulphonic acids of rosaniline hydrochloride and crystal violet in aqueous solution, on the decomposition of the. <i>Kastle</i>	42,	293
Light, water of crystallization as affected by. I. <i>McKee and Berkheiser</i>	40,	303
— on esters of α -cyanocinnamylidenacetic acid, the action of. <i>Reimer</i>	45,	417
— <i>Reimer and Keller</i>	50,	157
Lime and on so-called "dead burnt" lime, a new method for the determination of free. <i>Keiser and Forder</i>	31,	153
Limiting conductivity and ionization of alcoholic solutions, the. <i>Turner</i>	40,	558
Limits as exemplified in the transformation of esters, the interdependence of. Studies in esterification. IV. <i>Reid</i>	45,	479
<i>Lindera benzoin</i> , an investigation of the fatty oil contained in the seeds of. Lauric acid and some of its derivatives. <i>Caspari</i>	27,	291

Lipase, the fat-splitting enzyme, and the reversibility of its action, concerning. <i>Kastle and Loevenhart</i>	24,	491
—— the hydrolysis of ethyl butyrate by. <i>Kastle, Johnston and Elvove</i>	31,	521
—— towards the salts of certain acid esters considered in the light of the electrolytic dissociation theory, the inactivity of. <i>Kastle</i>	27,	481
Liquid mixtures of constant boiling point, a contribution to the study of. <i>Ryland</i>	22,	384
Liquids by wiping, a method for purifying and drying organic. <i>Jackson and Fiske</i>	44,	438
—— with ether, an apparatus for the extraction of. <i>Fiske</i>	41,	510
Lithium, acetate and cyanide, methods for the detection of. <i>Benedict</i>	32,	480
—— sodium, potassium and caesium and their solubility, the acid oxalates of. <i>Foote and Andrew</i>	34,	153
—— chloride, bromide and iodide, the specific gravities of. <i>Baxter</i>	31,	558
—— nitrate in mixtures of acetone, methyl alcohol, ethyl alcohol and water, together with the viscosity and fluidity of these mixtures, the conductivity of solutions of. X. <i>Jones and Mahin</i>	41,	433
Liver, on the fate of potassium myronate in the animal organism and its hydrolysis by the ferments of. <i>Kastle and McCaw</i>	32,	372
MAGNESIUM caesium silver and the calcium caesium silver thiocyanates, the. <i>Merriam</i>	28,	275
—— calcium caesium and strontium caesium thiocyanates, the. <i>Merriam</i>	28,	266
—— compounds with cinnamylidene esters, the reaction of organic:		
I. Reactions with methyl cinnamylidenemalonate. <i>Reimer</i>	38,	227
II. Reactions with methyl α -phenylcinnamylidenacetate. <i>Reimer and Reynolds</i>	40,	428
III. Reactions with the isomeric methyl esters of cinnamylidenacetic acid. <i>Reynolds</i>	46,	198
IV. Reactions with methyl α -methylcinnamylidenacetate. <i>Reimer and Reynolds</i>	48,	206
—— the reaction between unsaturated compounds and organic:		
I. Reactions of unsaturated aldehydes and unsaturated ketones. <i>Kohler</i>	31,	642

II. Reactions with derivatives of cinnamic acid. <i>Kohler and Heritage</i>	33,	21
III. Reactions with compounds containing bromine. <i>Kohler and Johnston</i>	33,	35
IV. Reactions with esters of α -phenylcinnamic acid. <i>Kohler and Heritage</i>	33,	153
V. Reactions with α -cyanocinnamic acid. <i>Kohler and Reimer</i>	33,	333
VI. Reactions with ethyl benzalmalonate. <i>Kohler</i>	34,	132
VII. Complex products from cinnamic esters. <i>Kohler and Heritage</i>	34,	568
VIII. Reactions with α,β -unsaturated nitriles. <i>Kohler</i>	35,	386
IX. Reactions with stereoisomers. <i>Kohler</i>	36,	177
X. Reactions with α -methylcinnamic acid. <i>Kohler</i>	36,	529
XI. Cyclic ketones. <i>Kohler</i>	37,	369
XII. Aldehydes and ketones. <i>Kohler</i>	38,	511
XIII. Derivatives of cyclohexane. <i>Kohler and Burnley</i>	43,	412
— — and unsaturated compounds containing alkoxy groups, the reaction between organic. <i>Reynolds</i>	44,	305
— permanganate as an oxidizing agent. <i>Michael and Garner</i>	35,	267
Maleate, on the nitrile of fumaric acid and the preparation of methyl. <i>Keiser and McMaster</i>	49,	81
Maleic and fumaric acids from the acetylene diiodides, the synthesis of. <i>Keiser and McMaster</i>	46,	518
Malonate, the reaction of nitrous anhydride with ethyl. <i>Curtiss</i>	35,	477
Malt sugar, on the action of Fehling's solution on. <i>Lewis</i>	42,	301
Manganese, on borate of. <i>Endemann and Paisley</i>	29,	68
— by electrolysis, separation of lead from. <i>Linn</i>	29,	82
— cobalt and zinc, the use of potassium periodate in the detection of. <i>Benedict</i>	34,	581
— peroxide, a suggested explanation of the reduction of permanganic acid by. <i>Olsen</i>	29,	242
— — further study of the decomposition of permanganic acid by. <i>Olsen and White</i>	29,	246
Manganic periodates, on some. <i>Price</i>	30,	182
Manganous caesium silver thiocyanate, $\text{Cs}_2\text{MnAg}_2(\text{SCN})_6 \cdot 2\text{H}_2\text{O}$. <i>Leavenworth and Wells</i>	28,	276
— — thiocyanate, $\text{Cs}_4\text{Mn}(\text{SCN})_6$. <i>Leavenworth</i>	28,	261
— sulphate, the solubility of. <i>Richards and Fraprie</i>	26,	75

Manometers, the. The relation of osmotic pressure to temperature. II. <i>Morse, Holland and Carpenter</i>	45,	237
—— for the measurement of osmotic pressure, improvements in. <i>Morse and Lovelace</i>	40,	325
Maximum in the conductivity curves of Kraus at high temperatures, the significance of the. <i>Jones</i>	31,	584
Mechanism of organic reactions, on the. Catalysis. XII. <i>Acree</i>	48,	352
—— of organic reactions, on the application of physical chemical methods to determine the. <i>Michael</i>	43,	322
Melting point, a method for the determination of the. <i>Kuhara and Chikasige</i>	23,	230
Membranes, the. The relation of osmotic pressure to temperature. IV. <i>Morse, Holland and Myers</i>	45,	517
—— by electrolysis, the preparation of osmotic. <i>Morse and Horn</i>	26,	80
—— prepared by the electrolytic process, new osmotic (preliminary announcement). <i>Morse</i>	29,	173
Mercapto- and halogenpyrimidines, the action of aqueous and alcoholic ammonia on some. Researches on pyrimidines. X. <i>Johnson and Johns</i>	34,	175
Mercuric caesium thiocyanates, the. <i>Bristol</i>	28,	260
—— chloride, the electrical conductivity of salts in fused. On the molecular condition of salts dissolved in a fused salt. II. <i>Foote and Martin</i>	41,	451
—— ——— by oxalic acid, on the effect of oxidizing agents on the reduction of. <i>Kastle and Beatty</i>	24,	182
—— ——— by phosphorous acid and the law of mass action, the reduction of. <i>Garner, Foglesong and Wilson</i>	46,	361
—— ——— <i>Garner</i>	46,	648
—— ——— with the alkali chlorides and their solubility, the double salts of. <i>Foote and Levy</i>	35,	236
—— and barium chlorides, on the solubility of. <i>Foote and Bristol</i>	32,	246
—— and caesium chlorides and their solubility, on the double. <i>Foote</i>	30,	339
—— cyanide and caesium iodide, on a compound of. <i>Mathewson and Wells</i>	30,	432
—— iodide, on the effect of various solvents on the allotropic change of. <i>Kastle and Clark</i>	22,	473
—— ——— in solution, on the nature of. <i>Kastle and Reed</i>	27,	209
—— oxides and the mercuric oxychlorides, the red and the yellow. <i>Schoch</i>	29,	319
Mercury, an apparatus for the purification of. <i>Desha</i> ...	41,	152

— and of hydrocyanic acid, the volumetric determination of. <i>Andrews</i>	30,	187
— ammonia compounds, a theory of the. <i>Franklin</i>	47,	361
— salts of the three nitroanilines. <i>Jackson and Peakes</i>	39,	567
Mesoxalic acid, a convenient and practical method for making the ester of. <i>Curtiss</i>	33,	603
— esters, amine derivatives of. <i>Curtiss</i>	35,	354
Metallic displacements in aqueous solutions, on reversible. <i>Smith</i>	37,	506
— oxides, on the action of chlorine in a solution of carbon tetrachloride and of carbon tetrachloride on. <i>Michael and Murphy</i>	44,	365
Metals on nitric acid, the action of. <i>Freer and Higley</i> ..	21,	377
Metaphosphoric acid, note on the rate of hydration of. <i>Blake and Blake</i>	27,	68
Methoxytribromo- <i>o</i> -benzoquinone monomethyl hemiacetal, on. <i>Jackson and Flint</i>	39,	80
Methyl alcohol, a simple color reaction for. <i>Mulliken and Scudder</i>	21,	266
— — in mixtures, the detection of. <i>Mulliken and Scudder</i>	24,	444
— and ethyl alcohols, on the formation of alcoholates by certain salts in solution in. XV. <i>Jones and McMaster</i>	35,	316
— and ethyl alcohols, some concentration cells in. <i>Wilson</i>	35,	78
— and ethyl alcohols at high dilutions, the conductivity of certain salts in. <i>Kreider and Jones</i> ..	46,	574
— and ethyl alcohols and mixtures of these solvents, velocity coefficients of the reaction between ethyl iodide and silver nitrate in. <i>Pearce and Weigle</i> ..	48,	243
— alcohol, ethyl alcohol, acetone and water, together with the viscosity and fluidity of these mixtures, the conductivity of solutions of lithium nitrate in ternary mixtures of. X. <i>Jones and Mahin</i>	41,	433
— — ethyl alcohol, acetone, water and binary mixtures of these solvents, the conductivity and viscosity of solutions of certain salts in. V. <i>Jones and McMaster</i>	36,	325
— — ethyl alcohol, acetone and water and in binary mixtures of these solvents, together with the conductivity of such solutions, the relative migration velocities of the ions of silver nitrate in. <i>Jones and Rouiller</i>	36,	427

— ethyl and propyl alcohols and water and in mixtures of these solvents, a study of the conductivity of certain salts in. <i>Jones and Lindsay</i>	28,	329
— alcohol, with ethyl alcohol and water, the conductivity and viscosity of solutions of certain salts in mixtures of acetone with. <i>Jones and Bingham</i> ..	34,	481
— and ethyl alcohols and water and mixtures of these solvents, a study of the conductivities of certain electrolytes in—relation between conductivity and viscosity. <i>Jones and Carroll</i>	32,	521
Methylamines and tetramethylammonium, some double halides of cadmium with. <i>Ragland</i>	22,	417
Methylaminobenzoic acids. Alkylation of aromatic amino acids. III. <i>Wheeler and Hoffman</i>	44,	113
— — note on. <i>Wheeler and Hoffman</i>	44,	507
β -Methylanthracene, a polymeric modification of. Dimethylidanthracene. <i>Orndorff and Megraw</i>	22,	152
Methyl benzyl ketone, on the condensation of nitromalonie aldehyde with. <i>Hill and Hale</i>	33,	1
α -Methylcinnamic acid, reactions with. The reaction between unsaturated compounds and organic magnesium compounds. X. <i>Kohler</i>	36,	529
α -Methylcinnamylidenacetate, reactions with methyl. The reaction between organic magnesium compounds and cinnamylidene esters. IV. <i>Reimer and Reynolds</i>	48,	206
Methyl cyanide as a catalytic reagent, on; and a criticism of J. U. Nef's views on the Frankland, Wurtz and Conrad reactions. <i>Michael</i>	25,	419
4-Methylcytosine, on the formation of purine derivatives from. Researches on pyrimidines. XLI. <i>Johns</i> .	41,	58
— synthesis of. Researches on pyrimidines. XXXVII. <i>Johns</i>	40,	348
5-Methylcytosine. Researches on pyrimidines. V. <i>Wheeler and Johnson</i>	31,	591
Methyl-di- <i>n</i> -propylmethane. <i>Clarke</i>	39,	87
Methylene and paraffin hydrocarbons, on the specific heats and heat of vaporization of the. <i>Mabery and Goldstein</i>	28,	66
α -Methyl- β -ethylhydroxylamine. β -Methyl- α -ethylhydroxylamine. Two isomeric α, β -dialkylhydroxylamines. <i>Jones</i>	38,	253
Methyl iodide and ethyl iodide in absolute ethyl alcohol at 25° and 35°, the reactions of sodium phenolate with. Catalysis. XVII. On the reactions of both the ions and the nonionized forms of electrolytes. <i>Robertson and Acree</i>	49,	474

Methyl- and ethylisoureas: on the oxygen ethers of the ureas. <i>McKee</i>	26,	209
5-Methyl-2-methylaminopyrimidine, preparation of. Dimethyl derivatives of 2-aminopyrimidine. Researches on pyrimidines. XLVI. <i>Johnson and Mackenzie</i>	42,	353
5-Methyl-6-oxy-2-aminopyrimidine, synthesis of. Researches on pyrimidines. VI. <i>Johnson and Clapp</i>	32,	130
4-Methyl-2-oxy-6-methylmercaptopyrimidine, the action of methyl iodide and of benzyl chloride upon. Researches on pyrimidines. XLVII. <i>Wheeler and McFarland</i>	42,	431
4-Methyl-6-oxypyrimidine-2-oxalothioglycolic acid, the action of hydroxylamine on. α -Hydroximido- β -mercaptopropionic acid. Researches on pyrimidines. LVI. <i>Johnson and Shepard</i>	48,	279
Methylphenylethylamine, synthesis of. Researches on amines. I. <i>Johnson and Guest</i>	42,	340
2-Methyl-1-phenylurazole, note on the reactions of. <i>Nirdlinger, Marshall and Acree</i>	43,	424
— on the reactions of diazoalkyls with. Urazoles. XV. <i>Nirdlinger and Acree</i>	43,	358
Methyltyrosine. A new method of synthesizing N-alkyl derivatives of α -amino acids. Hydantoins. XI. <i>Johnson and Nicolet</i>	47,	459
1-Methyluracil, synthesis of: some condensation products of a substituted pseudothiourea. Researches on pyrimidines. XX. <i>Johnson and Heyl</i>	37,	628
4-Methyluracil, the preparation of 1,4-dimethyluracil and of the monobenzyl derivatives of. Researches on pyrimidines. XLIV. <i>Wheeler and McFarland</i> ...	42,	101
3-Methyl- and 3-benzyluracil, the preparation of. Researches on pyrimidines. XLIII. <i>Wheeler and Johnson</i>	42,	30
4-Methyluracil-5-acetic acid, synthesis of. Researches on pyrimidines. XXVIII. <i>Johnson and Heyl</i>	38,	659
Microorganisms and fungi, ammonium sulphocyanate and thiourea as sources of nitrogen to. <i>Kastle and Elvove</i>	31,	550
Migration velocities of the ions of silver nitrate in water, methyl alcohol, ethyl alcohol and acetone and in binary mixtures of these solvents, together with the conductivity of such solutions, the relative. <i>Jones and Rouiller</i>	36,	427
Milk, chemical changes in the souring of. <i>Van Slyke and Hart</i>	32,	145

— and cheese, methods for the estimation of the proteolytic compounds contained in. <i>Van Slyke and Hart</i>	29,	150
Mixed crystals of silver chlorate and sodium chlorate, and their solutions, on the. <i>Foote</i>	27,	345
Molecular condition of salts dissolved in a fused salt, on the: <i>Foote and Levy</i>	37,	494
II. The electrical conductivity of salts in fused mercuric chloride. <i>Foote and Martin</i>	41,	451
— weight of solids, viscosity and fluidity of matter in the three states of aggregation and the. X. <i>Bingham</i>	45,	264
— weights, the determination of. <i>Biddle</i>	29,	341
— — by the boiling-point method, an apparatus for determining. <i>McCoy</i>	23,	353
— — of certain salts in acetone, the. <i>Jones</i> ...	27,	16
Mucobromic ester, on the action of potassium nitrite on. <i>Hill and Black</i>	32,	228
Multiple proportions, note on the experimental illustration of the law of. <i>Kastle</i>	43,	553
Murexide and of purpuric acid, the constitution of. <i>Slimmer and Stieglitz</i>	31,	661
Myronate in the animal organism and its hydrolysis by the ferments of the liver, on the fate of potassium. <i>Kastle and McCaw</i>	32,	372
β -NAPHTHYLIMIDO ethyl ester, furimido methyl ester and <i>p</i> -tolenylimido methyl ester, experiments with. <i>Atwater</i>	23,	145
Narceine and narcotine. <i>Frankforter and Keller</i>	22,	61
Neo- and allochlorophyll in the presence of one another, methods for determining. <i>Jacobson and Marchlewski</i>	48,	111
Neodymium, uranium, cobalt and erbium as affected by temperature and by chemical reagents, the absorption spectra of certain salts of. XXXII. <i>Jones and Strong</i>	45,	I, 113
Nephelometer, an instrument for detecting and estimating opalescent precipitates, the. <i>Richards and Wells</i> ..	31,	235
— note concerning the use of the. <i>Richards</i>	35,	510
Nickel and the effect of occluded hydrogen, the electromotive force of. <i>Schoch</i>	41,	208
— anode and the phenomena of passivity, the behavior of the. <i>Schoch</i>	41,	232
— caesium silver and the nickel caesium cuprous thiocyanates, the. <i>Roberts and Wells</i>	28,	277

Nitrates, investigations on double. <i>Wells</i>	26,	275
— on the acid. <i>Wells and Metzger</i>	26,	271
— by certain plant extracts and metals and the accelerating effect of certain substances on the progress of the reduction, on the reduction of. <i>Kastle and Elvove</i>	31,	606
Nitration of the paraffins, direct. <i>Worstell</i>	21,	210
Nitric acid, the action of metals on. <i>Freer and Higley</i> ..	21,	377
Nitric and nitrous oxides and ammonia, pure nitrogen from. <i>Baxter and Hickey</i>	33,	300
Nitrification, studies in. <i>Fraps</i>	29,	225
Nitriles, studies in the preparation of. <i>Reid</i>	43,	162
— catalyzed by ethylates, on the reversible addition of alcohols to:		
I. Catalysis. XIV. <i>Marshall and Acree</i>	49,	127
II. Catalysis. XVI. On the reactions of both the ions and the nonionized forms of electrolytes. <i>Marshall, Harrison and Acree</i>	49,	369
Nitroanilines, mercury salts of the three. <i>Jackson and Peakes</i>	39,	567
— with <i>p</i> -nitrosobenzaldehyde, the condensation of the three. <i>Alway and Gortner</i>	36,	510
<i>p</i> -Nitrobenzylaniline, the action of alkaline sulphides on. <i>Alway and Walker</i>	30,	105
Nitro compounds, on certain colored substances derived from. III. <i>Jackson and Gazzolo</i>	23,	376
<i>Jackson and Earle</i>	29,	89
5-Nitrocytosine and its reduction to 2-oxy-5,6-diaminopyrimidine, on. Researches on pyrimidines. XVII. <i>Johnson, Johns and Heyl</i>	36,	160
Nitro derivatives of the vicinal tribromobenzene, on certain. <i>Jackson and Fiske</i>	30,	53
α -Nitro- β -dinitropropionic aldehyde, and some derivatives of. <i>Torrey and Black</i>	24,	452
Nitrogen, reactions among certain classes of compounds containing. The Beckmann rearrangement. Applications of the electronic conception of valence. <i>Jones</i>	50,	414
— the elementary analysis of organic substances containing. <i>Benedict</i>	23,	334
— the ethers of isonitrosoguaiacol in their relation to the space isomerism of. <i>Bridge and Morgan</i>	22,	484
— the relation of trivalent to pentavalent, I. <i>Lachmann</i>	21,	433
— from nitrous and nitric oxides and ammonia, pure. <i>Baxter and Hickey</i>	33,	300

— to fungi and microorganisms, ammonium sulphocyanate and thiourea as sources of. <i>Kastle and Elvove</i>	31,	550
— and humus. Studies on the soils of the northern portion of the Great Plains region. <i>Alway and Trumbull</i>	40,	147
— and oxygen, the oxidation of. <i>Strong</i>	50,	204
— compounds, on certain. <i>Alway and Pinckney</i> ...	32,	398
— — the "syn" and "anti" stereoisomerism of. <i>Stieglitz</i>	40,	36
— iodide," preparation and properties of the so-called. <i>Chattaway and Orton</i>	23,	363
— — the action of acids upon. <i>Chattaway and Stevens</i>	24,	331
— — the action of alkaline hydroxides, of water and of hydrogen peroxide on. <i>Chattaway and Orton</i>	24,	318
— — the action of light on. <i>Chattaway and Orton</i>	24,	159
— — the action of reducing agents on. <i>Chattaway and Stevens</i>	23,	369
— — the composition of. <i>Chattaway</i>	24,	138
— — the formation and constitution of. <i>Chattaway and Orton</i>	24,	342
— — and the action of iodine on the fatty amines, the composition of. <i>Norris and Franklin</i> .	21,	499
— peroxide, hydrogen peroxide and ozone in gas mixtures, on the detection of. <i>Keiser and McMaster</i>	39,	96
Nitro group, reactions for the detection of the. <i>Mulliken and Barker</i>	21,	271
— — the replacement of halogen by the. <i>Raiford and Heyl</i>	I, 43, 393; II, 44,	209
Nitroheptane, action of sulphuric acid on. <i>Worstell</i>	22,	164
Nitromalonic aldehyde, on. <i>Hill and Torrey</i>	22,	89
— <i>Hill</i>	24,	1
— — on the oximes of. <i>Hill and Hale</i>	29,	253
— — with acetylacetone, on the condensation of. I. <i>Hale and Robertson</i>	39,	680
— — with certain ketones and ketone acids, on the condensation of. <i>Soch and Oenslager</i>	24,	1
— — with methyl benzyl ketone, on the condensation of. <i>Hill and Hale</i>	33,	1
Nitroparaffins, higher primary. <i>Worstell</i>	21,	218
Nitrophenols, on relations between the color and the composition and constitution of the alkali salts of the. <i>Frazer</i>	30,	309

4-Nitrophenylethylamine and 2,4-dinitrophenylethylamine, syntheses of. Researches on amines. II.	
<i>Johnson and Guest</i>	43, 310
β - <i>m</i> -Nitrophenylglutaric acid. <i>Avery and Gere</i>	28, 51
β - <i>p</i> -Nitrophenylglutaric acid. <i>Avery and Beans</i>	28, 55
4-Nitro-5-pyrazolone, on. <i>Hill and Black</i>	33, 292
δ -Nitropyromucic acid, on. <i>Hill and White</i>	27, 193
<i>p</i> -Nitrosobenzaldehyde, the condensation of the three nitroanilines with. <i>Alway and Gortner</i>	36, 510
<i>p</i> - and <i>m</i> -Nitrosobenzaldehyde, the relations existing between the physical properties and the molecular weights of. <i>Alway and Bonner</i>	30, 111
Nitrosocinnamic acids and esters, the. <i>Alway and Bonner</i>	32, 392
Nitroso compounds, the decomposition of. <i>Noyes and Taveau</i>	32, 285
— the molecular weights of the yellow. <i>Alway and Gortner</i>	32, 400
— the preparation of aromatic. <i>Alway</i>	32, 385
<i>p</i> -Nitrosodialkylanilines, the action of ethylene dibromide on. <i>Torrey</i>	34, 475
<i>p</i> -Nitrosodimethylaniline, on the action of ethylene dibromide on. <i>Torrey</i>	28, 107
— with certain phenols, on the addition products of. <i>Torrey and Gibson</i>	35, 246
<i>p</i> -Nitro- <i>o</i> -sulphobenzoic acid, a further investigation of the action of phenols and alcohols on the chlorides of. <i>Chambers</i>	30, 373
— a further investigation of the symmetrical chloride of. <i>Henderson</i>	25, I
— the symmetrical chloride of. <i>Hollis</i>	23, 233
— and <i>o</i> -sulphobenzoic acids on urea, on the action of the chlorides of. <i>Holmes</i>	25, 202
Nitro- <i>o</i> -sulphobenzoic acid and some of its derivatives. <i>Stubbs</i>	50, 193
Nitrotribromiodobenzene. <i>Jackson and Jones</i>	49, 46
Nitrous anhydride with ethyl malonate, the reaction of. <i>Curtiss</i>	35, 477
— and nitric oxides and ammonia, pure nitrogen from. <i>Baxter and Hickey</i>	33, 300
Nomenclature, American commission on.....	47, 360
Nonionized forms of electrolytes, on the reactions of both the ions and the:	
Catalysis. XV. <i>Acree</i>	49, 345
The reversible addition of alcohols to nitriles catalyzed by sodium ethylate. II. Catalysis. XVI. <i>Marshall, Harrison and Acree</i>	49, 369

The reactions of sodium phenolate with methyl iodide and ethyl iodide in absolute ethyl alcohol at 25° and 35°. Catalysis. XVII. *Robertson and*

	<i>Acree</i>	49,	474
Note.	<i>Cushman</i>	31,	445
	<i>Forssell</i>	31,	680

OBITUARIES:

Abegg, Richard.	<i>Jones</i>	43,	563
Ahrens, Felix B.	.....	45,	215
Allen, Alfred Henry	.....	33,	326
Atwater, Wilbur Olin.	<i>True</i>	38,	652
Barker, George Frederick.	<i>Clarke</i>	44,	556
Beilstein, Fedor F.	.....	36,	611
Bell, Isaac Lowthian	.....	33,	196
Berthelot, Marcellin Pierre Eugène	.....	37,	542
Boisbaudran, Paul Émile Lecoq de	.....	48,	381
Brühl, Julius Wilhelm	.....	45,	536
Brunck, Heinrich von.	<i>Rouiller</i>	47,	265
Bruyn, Cornelius Adriaan Lobry de	.....	32,	514
Bunsen, Robert Wilhelm.	<i>Gilpin</i>	22,	411
Cailletet, L. P.	.....	49,	336
Cannizzaro, Stanislaò.	<i>Jones</i>	44,	384
Caro, Heinrich.	<i>Renouf</i>	44,	557
Chalmot, Guillaume Louis Jacques de.	<i>Remsen</i> ...	23,	447
Claus, Adolf.	<i>Gilpin</i>	24,	94
Cleve, Per Theodor	.....	34,	349
Curie, Pierre	.....	35,	534
Drown, Thomas Messinger	.....	33,	196
Dudley, Charles Benjamin.	<i>Fay</i>	43,	183, 278
Erdmann, Hugo.	<i>Renouf</i>	44,	474
Fittig, Rudolph.	<i>Remsen</i>	45,	210
Frankland, Edward.	<i>Gilpin</i>	22,	410
Friedel, Charles.	<i>Gilpin</i>	22,	87
Gibbs, Wolcott	.....	41,	65
Goessmann, Charles Anthony.	<i>Chamberlain</i>	44,	475
Grimaux, Édouard.	<i>Gilpin</i>	24,	94
Henry, Louis	.....	50,	253
Hill, Henry Barker.	<i>Jackson</i>	30,	80
Hoff, Jacobus Henricus van't.	<i>Jones</i>	45,	403
Johnson, Samuel William	.....	42,	474
Kinnicutt, Leonard Parker	.....	45,	411
Knietsch, Rudolf	.....	36,	321
Kohlrausch, Friedrich	.....	43,	384
Kostanecki, Stanislaus von	.....	45,	216
Ladenburg, Albert	.....	46,	528

Landolt, Hans. <i>Jones</i>	43,	425
Lawes, Sir John Bennet. <i>Gilpin</i>	24,	466
Lewkowitsch, Julius.....	50,	466
Loeb, Morris.....	48,	547
Mallet, John William. <i>Dunnington</i>	49,	69
Mendeléeff, Dmitri Ivanowitsh.....	37,	284
Menschutkin, Nicolai Alexandrowitsch.....	37,	413
Meyerhoffer, Wilhelm.....	36,	521
Moissan, Henri.....	37,	413
Mond, Ludwig.....	43,	181
Pechmann, Hans von. <i>Renouf</i>	28,	82
Perkin, Sir William. <i>Remsen</i>	38,	249
Prescott, Albert Benjamin.....	33,	431
Rammelsberg, Carl Friedrich.....	23,	261
Raoult, François Marie. <i>Jones</i>	25,	510
Rising, Willard Bradley.....	43,	385
Roozeboom, Hendrik Willem Bakhuis.....	37,	415
Shapleigh, Waldron.....	26,	382
Skraup, Zdenko Hans.....	44,	559
Thomsen, Julius. <i>Rouiller</i>	41,	442
Tiemann, Johann Carl Wilhelm Ferdinand. <i>Gilpin</i>	23,	178
Torrey, Henry Augustus. <i>Jackson</i>	44,	472
Volhard, Jakob. <i>Renouf</i>	43,	281
Williamson, Alexander William.....	32,	513
Winkler, Clemens.....	32,	611
Wislicenus, Johannes. <i>Talbot</i>	29,	174
Octochloroindigo and some derivatives of tetrachloroanthranilic and tetrachlorophthalic acids. <i>Orndorff and Nichols</i>	48,	473
Oil, hydrocarbons in Santa Barbara crude. <i>Mabery</i>	33,	270
Oil wells in Pennsylvania, the solid paraffin hydrocarbons that collect in certain. <i>Mabery</i>	33,	278
Opalescent precipitates, the nephelometer, an instrument for detecting and estimating. <i>Richards and Wells</i>	31,	235
— silver chloride precipitates, the estimation of. <i>Wells</i>	35,	99, 508
Organic acids by their toluides, identification of. <i>Scudder</i>	29,	511
— reactions, on the application of physical chemical methods to determine the mechanism of. <i>Michael</i>	43,	322
— — on the mechanism of. Catalysis. XII. <i>Acree</i>	48,	352
Orthoperiodic acid into normal periodic acid, the conversion of. <i>Lamb</i>	27,	134
Osmose, electric (preliminary communication). <i>Frazer and Holmes</i>	40,	319

Osmotic membranes by electrolysis, the preparation of.		
<i>Morse and Horn</i>	26,	80
— prepared by the electrolytic process,		
new (preliminary announcement). <i>Morse</i>	29,	173
— pressure, improvements in cells for the measure-		
ment of. <i>Morse and Mears</i>	40,	266
— improvement in manometers for the		
measurement of. <i>Morse and Lovelace</i>	40,	325
— the regulation of temperature in the		
measurement of. <i>Morse and Holland</i>	41,	92
— of cane sugar solutions in the vicinity of		
the freezing point of water, the. <i>Morse, Frazer and</i>		
<i>Holland</i>	37,	425
— of cane sugar solutions in the vicinity of		
5°, the. <i>Morse, Frazer and Dunbar</i>	38,	175
— of cane sugar solutions at 10°, the.		
<i>Morse and Morse</i>	39,	667
— of cane sugar solutions at 15°, the.		
<i>Morse and Mears</i>	40,	194
— of cane sugar solutions at 20°, the.		
<i>Morse and Holland</i>	41,	257
— of cane sugar solutions at 25°, the.		
<i>Morse and Holland</i>	41,	I
— of cane sugar solutions at high tempera-		
tures, the. <i>Morse, Holland, Myers, Cash and Zinn</i>	48,	29
— of glucose solutions in the vicinity of the		
freezing point of water, the. <i>Morse, Frazer and</i>		
<i>Rogers</i>	37,	558
— of glucose solutions at 10°, the. <i>Morse</i>		
and <i>Holland</i>	40,	I
— to temperature, the relation of:		
I. The manufacture of the cells employed in the		
measurements. <i>Morse, Holland, Frazer and</i>		
<i>Mears</i>	45,	91
II. The manometers. <i>Morse, Holland and Carpen-</i>		
<i>ter</i>	45,	237
III. The regulation of temperature. <i>Morse, Hol-</i>		
<i>land and Zies</i>	45,	383
IV. The membranes. <i>Morse, Holland and Myers</i> .	45,	517
V. The measurements. <i>Morse, Holland, Zies,</i>		
<i>Myers, Clarke and Gill</i>	45,	554
— and freezing points of solutions of cane		
sugar, the. <i>Morse and Frazer</i>	34,	I
— and o the depression of the freezing		
points of cane sugar solutions, a redetermination of		
the. <i>Morse, Frazer, Hoffman and Kennon</i>	36,	39

— — — and the depression of the freezing points of solutions of glucose, the. <i>Morse, Frazer and Hopkins</i>	36,	I
<i>Morse, Frazer and Lovelace</i>	37,	324
— pressures, the preparation of cells for the measurement of high. <i>Morse and Frazer</i>	28,	I
Oxalate, action of phenols on ethyl. <i>Tingle and O'Byrne</i>	25,	496
— and ethyl formate with some pyrimidinethioglycolates, the condensation of diethyl. Researches on pyrimidines. LIII. <i>Johnson and Shepard</i>	46,	345
Oxalates, on certain alleged double. <i>Foote and Andrew</i> ..	34,	164
Oxalic acid, on the effect of oxidizing agents on the reduction of mercuric chloride by. <i>Kastle and Beatty</i> ...	24,	182
— — — by permanganate in the presence of hydrochloric acid, the determination of. <i>Baxter and Zanetti</i>	33,	500
— ethyl ester with ethylene and trimethylene cyanides, on the condensation of. <i>Michael</i>	30,	156
Oxazole series, studies in the:		
Syntheses of ω -ketotetrahydrooxazoles. <i>Johnson and Langley</i>	44,	352
II. The addition of cyanic acid to epichlorohydrin. <i>Johnson and Guest</i>	44,	453
Oxidation, selective. <i>Jones and Strong</i>	45,	36
— of ortho, meta and para compounds, relative rates of. <i>Bradshaw</i>	35,	326
— and reduction in the animal organism and the toxic action of powerful oxidizing and reducing substances. <i>Kastle and Elvove</i>	31,	195
Oxidations, peroxidase accelerators and their possible significance for biological. <i>Kastle</i>	40,	251
Oxidizing agents, on the behavior of various aldehydes, ketones and alcohols towards. <i>Denis</i>	38,	561
— ferments, on the nature of certain of the. <i>Kastle and Loevenhart</i>	26,	539
— — — phenolphthalin as a reagent for the. <i>Kastle and Shedd</i>	26,	526
Oximes of some thioglycolide compounds and their behavior on reduction, the. Researches on pyrimidines. LVIII. <i>Johnson and Moran</i>	48,	307
6-Oxy-5-amino-2-ethylmercaptopyrimidine. Researches on pyrimidines. XI. <i>Johnson</i>	34,	191
2-Oxy-6-aminopyrimidine or cytosine from triticonucleic acid, on. <i>Wheeler and Johnson</i>	29,	505
Oxaminopyrimidines having the composition of cytosine,		

syntheses of: 6-oxy-2-aminopyrimidine and 2-oxy-6-aminopyrimidine. <i>Wheeler and Johnson</i>	29,	492
6-Oxy-2-anilinopyrimidine and the synthesis of 2-anilino-pyrimidine, the action of methyl iodide on. Re-searches on pyrimidines. XXI. <i>Johnson and Heyl</i> .	38,	237
2-Oxy-2,6-diaminopyrimidine. Researches on pyrimi-dines. VII. <i>Wheeler and Jamieson</i>	32,	342
2-Oxy-5,6-diaminopyrimidine, on 5-nitrocytosine and its reduction to. Researches on pyrimidines. XVII. <i>Johnson, Johns and Heyl</i>	36,	160
6-Oxy-2,5-diaminopyrimidine, on. Researches on pyrimi-dines. XII. <i>Johnson and Johns</i>	34,	554
Oxygen by α -rays, the ozonization of. <i>Lind</i>	47,	397
— from sodium peroxide, dry method for the genera-tion of (Note). <i>Turner</i>	37,	106
— from sodium peroxide, the generation of (Note). <i>Burrows</i>	37,	283
— and nitrogen, the oxidation of. <i>Strong</i>	50,	204
Oxynitrohydrothymine. The action of nitric acid on 2,6-dioxypyrimidines. Researches on pyrimidines. XXX. <i>Johnson</i>	40,	19
Ozone, atmospheric. <i>Holmes</i>	47,	497
— on carbon monoxide, the action of. <i>Waters</i>	30,	50
— with certain inorganic salts, reactions of. <i>Ya-mauchi</i>	49,	55
— hydrogen peroxide, etc., on carbon monoxide, the action of. <i>Jones</i>	30,	40
— nitrogen peroxide and hydrogen peroxide in gas mixtures, on the detection of. <i>Keiser and McMas-ter</i>	39,	96
Ozonization of oxygen by α -rays, the. <i>Lind</i>	47,	397
PARACASEIN and casein contained in cottage and ched-dar cheese, a study of the artificial digestion of some compounds of. <i>Van Slyke and Hart</i>	32,	154
— and casein in some of their relations to bases and acids. <i>Van Slyke and Hart</i>	33,	461
— and casein with acids, a study of some of the salts formed by: their relations to American cheddar cheese. <i>Van Slyke and Hart</i>	28,	411
Paraffin, composition of commercial. <i>Mabery</i>	33,	285
— hydrocarbons from petroleum without distillation, separation of solid. <i>Mabery and Sieplein</i>	33,	276
— — that collect in certain oil wells in Penn-sylvania, the solid. <i>Mabery</i>	33,	278
— and methylene hydrocarbons, on the specific		

heats and heat of vaporization of the. <i>Mabery and Goldstein</i>	28,	66
Paraffins, direct nitration of the. <i>Worstell</i>	21,	210
Passivity, the behavior of the nickel anode and the phenomena of. <i>Schoch</i>	41,	232
Pecan oil.(Note). <i>Deiler and Fraps</i>	43,	90
Pentadecylamine and undecylamine and the preparation of the higher amines of the aliphatic series, on. <i>Jeffreys</i>	22,	14
Pentaerythrose, aldol and the action of copper acetate on the hexoses, on. <i>McLeod</i>	37,	20
2-Pentene, the additive power of. <i>Brunel and Probeck</i> ..	44,	431
Pentosans, the determination of. <i>Fraps</i>	25,	501
Peptides, peptones and amino acids, the copper complexes of. II. Their configuration and relation to the biuret reaction. <i>Kober and Sugiura</i>	48,	383
Peracids, the action of hydrogen peroxide on anhydrides and the formation of organic acid peroxides and. <i>Clover and Houghton</i>	32,	43
— and peroxides, the hydrolysis of organic. <i>Clover and Richmond</i>	29,	179
Perchloric acid and chlorine heptoxide, on the behavior of iodine and bromine towards. <i>Michael and Conn</i> ..	25,	89
Perchromic acid, on the existence of. <i>Patten</i>	29,	385
— — and the perchromates. <i>Byers and Reid</i> ..	32,	503
Periodic acid, the conversion of orthoperiodic acid into normal. <i>Lamb</i>	27,	134
Periodic relations of the elements and their graphic representation, a study of the. <i>Helix chemica. Emerson</i>	45,	160
— system and the atomic weight of radium, the. <i>Jones</i>	34,	467
— — and the properties of inorganic compounds, on the:		
II. Gradations in the properties of alums. <i>Locke</i> ..	26,	166
III. The solubility of alums as a function of two variables. <i>Locke</i>	26,	332
IV. The solubility of the double sulphates of the formula $M'_2M''(SO_4)_2.6H_2O$. <i>Locke</i>	27,	455
Perkin reaction, on the: a reply to the criticism of H. Meyer and Beer. <i>Michael</i>	50,	411
Permanganate in the presence of hydrochloric acid, the determination of oxalic acid by. <i>Baxter and Zanetti</i>	33,	500
— in the presence of hydrochloric acid, the titration of ferrous iron with. <i>Baxter and Frevert</i>	34,	109

- Permanganic acid, on the cause of the evolution of oxygen when oxidizable gases are absorbed in. *Morse and Byers*..... 23, 313
- — — by electrolysis. *Morse and Olsen*..... 23, 431
- — — by manganese peroxide, a suggested explanation of the reduction of. *Olsen*..... 29, 242
- — — by manganese peroxide, further study of the decomposition of. *Olsen and White*..... 29, 246
- Peroxidase accelerators and their possible significance for biological oxidations. *Kastle*..... 40, 251
- Peroxides and peracids, the action of hydrogen peroxide on anhydrides and the formation of organic acid. *Clover and Houghton*..... 32, 43
- and peracids, the hydrolysis of organic. *Clover and Richmond*..... 29, 179
- Petroleum, index of refraction of the solid hydrocarbons in. A method for determining the index of refraction of solid hydrocarbons with the Pulfrich refractometer. *Mabery and Shepherd*..... 29, 274
- investigations on the composition of. *Mabery*.. 25, 253
- on the chlorine derivatives of the hydrocarbons in California. *Mabery and Sieplein*..... 25, 284
- on the composition of. *Mabery*..... 33, 251; 35, 404
- on the composition of California. *Mabery and Hudson*..... 25, 253
- on the composition of Japanese. *Mabery and Takano*..... 25, 297
- Texas. *Thiele*..... 22, 489
- the composition of. On the hydrocarbons in Pennsylvania petroleum with boiling points above 216°. *Mabery*..... 28, 165
- the sulphur compounds and unsaturated hydrocarbons in Canadian. *Mabery and Quayle*..... 35, 404
- by capillary diffusion, the fractionation of crude. *Gilpin and Cram*..... 40, 495
- by diffusion through fuller's earth, fractionation of California. *Gilpin and Schneeberger*..... 50, 59
- through fuller's earth, the diffusion of crude. *Gilpin and Bransky*..... 44, 251
- with boiling points above 213°, the hydrocarbons in Ohio Trenton limestone. *Mabery and Palm*... 33, 251
- with high boiling points, the hydrocarbons in Canadian. *Mabery*..... 33, 263
- without distillation, separation of solid paraffin hydrocarbons from. *Mabery and Sieplein*..... 33, 276

Phenetole, the action of sulphuric acid on. <i>Schober and Bowers</i>	25,	69
Phenol, the bromination of. <i>Dinwiddie and Kastle</i>	46,	502
Phenolphthalein and the use of this body as an indicator, on the ionization constants of. <i>McCoy</i>	31,	503
Phenolphthalin as a reagent for the oxidizing ferments. <i>Kastle and Shedd</i>	26,	526
Phenols, the decomposition of diazonium salts with. <i>Norris, Macintire and Corse</i>	29,	120
— on ethyl oxalate, action of. <i>Tingle and O'Byrne</i>	25,	496
— with <i>p</i> -nitrosodimethylaniline, on the addition products of certain. <i>Torrey and Gibson</i>	35,	246
Phenoltetrachlorophthalein and some of its derivatives. <i>Orndorff and Black</i>	41,	349
Phenoquinone and quinhedrone, on the dissociation of. <i>Torrey and Hardenbergh</i>	33,	167
Phenoxozone derivatives. <i>Hillyer</i>	26,	361
Phenylacetimido esters, experiments with. <i>Johnson</i>	23,	142
Phenylalanine and of tyrosine, a synthesis of. On hydantoins. I. <i>Wheeler and Hoffman</i>	45,	368
Phenylbenzenylphenylaminoamidine and diphenylbenzenylaminoamidine: on isomerism in the amidine series. <i>Wheeler and Johnson</i>	31,	577
α -Phenylcinnamic acid, reactions with esters of. The reaction between unsaturated compounds and organic magnesium compounds. IV. <i>Kohler and Heritage</i>	33,	153
α -Phenylcinnamylidenacetate, reactions with methyl. The reaction between organic magnesium compounds and cinnamylidene esters. II. <i>Reimer and Reynolds</i>	40,	428
Phenyl ether, derivatives of. <i>Cook and Hillyer</i>	24,	525
<i>Cook and Frary</i>	28,	486
Phenylglycocol- <i>o</i> -sulphonic acid, some derivatives of. <i>Bradshaw</i>	35,	340
Phenylhydrazine on acylthiocarbamic and acylimidothiocarbamic esters, on the action of: pyrrho- α,β' -diazole derivatives. <i>Wheeler and Beardsley</i>	27,	257
— on benzoylpseudothioureas, on the action of: 1,5-diphenyl-3-aminopyrrho- α,β' -diazole derivatives. <i>Wheeler and Beardsley</i>	29,	73
Phenylhydrazones, on the constitution of the. <i>Freer</i>	21,	14
Phenylimidothiocarbamic acid derivatives and thiosemicarbazidic esters: on the molecular rearrangement of disubstituted thioncarbamic esters. <i>Wheeler and Dustin</i>	24,	424
Phenylisoxazolone. <i>Tingle</i>	34,	471

Phenylmalonic nitrile, on. <i>Hessler</i>	32, 119; 39,	63
Phenyl mustard oil as a reagent for the detection of the alcoholic hydroxyl group. <i>Orndorff and Richmond</i> . 22,		458
— <i>p</i> -nitro- <i>o</i> -tolyl sulphone. <i>Norris</i>	24,	469
<i>o</i> -Phenylsulphonebenzoic acid and related compounds. <i>Canter</i>	25,	96
Phenylthiohydantoins, aldehyde condensation products of. On hydantoins. II. <i>Wheeler and Brautlecht</i>	45,	446
Phenylurazole, constitution of:		
I. <i>Acree</i>	27,	118
III. A contribution to the study of tautomerism. Urazoles. X. <i>Acree</i>	38,	1
— on the acetyl derivatives of. <i>Acree</i>	32,	606
Phloroglucinol, the purification of. <i>Fraps</i>	24,	270
Phosphonium iodide on polychlorides, the action of. I. <i>Fireman and Fireman</i>	30,	116
Phosphoric acid by means of ammonium phosphomolybdate, the determination of. <i>Baxter</i>	28,	298
<i>Baxter and Griffin</i>	34,	204
— of the soil, the ammonia-soluble. <i>Fraps</i> 39,		579
— and vanadic acids in the presence of one another, the precipitation of vanadic acid as silver vanadate and the estimation of. <i>Edgar</i>	44,	467
Phosphorous acid and the law of mass action, the reduction of mercuric chloride by. <i>Garner, Fogelsong and Wilson</i>	46,	361
<i>Garner</i>	46,	648
Phosphorus in certain food materials and animal by-products with special reference to the presence of inorganic forms, the status of. <i>Hart and Andrews</i> ...	30,	470
— in small amounts, the titrimetric estimation of. <i>Bowser</i>	45,	230
— pentabromide, on the supposed allotropism of. <i>Kastle and Beatty</i>	23,	505
— in solution in organic solvents, on the dissociation of. <i>Kastle and Beatty</i>	21,	392
— pentachloride on aniline, the action of. <i>Gilpin</i> . 27,		444
Phthalanilic acid and of certain allied compounds, intramolecular condensation of. II. <i>Tingle and Lovelace</i>	38,	642
Phthaleins. II. On the theory of indicators and the reactions of phthaleins and their salts. <i>Acree and Slagle</i>	39,	789
— tautomerism of. III. On the theory of indicators and the reactions of phthaleins and their salts. <i>Acree and Slagle</i>	42,	115

— and their salts, on the theory of indicators and the reactions of the. <i>Stieglitz and Acree</i>	39,	528
Phthalic acid and succinic acid, preparation of the aniline derivatives of. <i>Tingle and Cram</i>	37,	596
Phthaloximes and some of their derivatives, the two. <i>Orndorff and Pratt</i>	47,	89
Phthalyl chloride at different temperatures, action of aromatic amines upon. <i>Kuhara and Fukui</i>	26,	454
Physical chemical methods to determine the mechanism of organic reactions, on the application of. <i>Michael</i> .	43,	322
Picric acid, on certain derivatives of. <i>Jackson and Earle</i> .	29,	212
Picryl chloride on pyrocatechol in presence of alkalis, action of. <i>Hillyer</i>	23,	125
Pinacol-pinacolin rearrangement, on the:		
<i>Acree</i>	33,	180
<i>Montagne</i>	33,	604
IV. The preparation of benzoylformic acid and some of its derivatives. <i>Acree</i>	50,	389
Plant foods, factors of availability of. <i>Fraps</i>	32,	1
Platinum tetrachloride from aqueous hydrochloric acid by atmospheric oxidation in contact with platinum black, on the formation of. <i>Mallet</i>	25,	430
Poison ivy plant, some constituents of the. <i>Acree and Syme</i>	36,	301
Polychlorides, the action of phosphonium iodide on.		
I. <i>Fireman and Fireman</i>	30,	116
Potential between cadmium and alcoholic solutions of some of its salts, differences of. <i>Getman</i>	46,	117
Potentials of zinc in alcoholic solutions of zinc chloride. <i>Getman and Gibbons</i>	48,	124
Potassium and caesium, on iodocyanides of. <i>Mathewson and Wells</i>	30,	430
— caesium, lithium, and sodium and their solubility, the acid oxalates of. <i>Foote and Andrew</i>	34,	153
— caesium and rubidium, the polyiodides of. <i>Foote and Chalker</i>	39,	561
— and silver and their solubility, on the thiocyanates of. <i>Foote</i>	30,	330
— rubidium and erbium compounds, experiments on on the radioactivity of. <i>Strong</i>	42,	147
— cyanide as a condensing agent, on. <i>Smith</i>	22,	249
— ferricyanide, on an isomer of. <i>Locke and Edwards</i>	21,	193
— — the preparation of. <i>Karslake</i>	37,	637
— β -ferricyanide, concerning. <i>Wells</i>	49,	205
— — through the action of acids upon the		

normal ferricyanide, on the formation of. <i>Locke and Edwards</i>	21,	413
— iodide and iodine to organic compounds containing the carbonyl group, the addition of. <i>Clover</i> ...	31,	256
— lead and caesium lead thiocyanates, the. <i>Wall-bridge and Wells</i>	28,	258
— and barium nitrates, on a double salt of. <i>Wall-bridge</i>	30,	154
— and barium nitrites and chlorides, on the solubility of. <i>Foote</i>	32,	251
— periodate in the detection of manganese, cobalt and zinc, the use of. <i>Benedict</i>	34,	581
— permanganate, the germicidal action of. <i>Garner and King</i>	35,	144
— silver barium thiocyanate. <i>Wells</i>	28,	283
— — thiocyanates, the. <i>Merriam</i>	28,	265
— sodium sulphites, the supposed isomeric. <i>Fraps</i> .	23,	202
— thiocyanate on asparagine, the action of. Hydantoin. XIV. <i>Johnson and Guest</i>	48,	103
— — on primary halides, the action of. Researches on pyrimidines. LVII. <i>Johnson and Hill</i> .	48,	296
— — on pyrrolidinecarboxylic acid, the action of. 2-Thiohydantoin-4-propionic acid. Hydantoin. X. <i>Johnson and Guest</i>	47,	242
— — upon some imide chlorides, the action of. Researches on pyrimidines:		
IX. <i>Wheeler and Bristol</i>	33,	448
XV. <i>Johnson and McCollum</i>	36,	136
XXXV. <i>Johnson and Storey</i>	40,	131
— and ammonium thiocyanates on α -amino acids, the action of. Hydantoin. XXI. <i>Johnson and Nicolet</i>	49,	197
Pressures, a method for carrying out chemical reactions under high. <i>Hite</i>	22,	80
Propanetrisulphonic acid (preliminary paper). <i>Schober</i> ..	32,	165
Propenylphthalimide, the transformation of allylphthalimide into. <i>Johnson and Jones</i>	45,	343
Propyl, methyl and ethyl alcohols and water and in mixtures of these solvents, a study of the conductivity of certain salts in. <i>Jones and Lindsay</i>	28,	329
Proteids, a formaldehyde color test for. I. <i>Acree</i>	37,	604
Proteolysis in the ripening of cheddar cheese, the relation of carbon dioxide to. <i>Van Slyke and Hart</i>	30,	1
Proteolytic compounds contained in cheese and milk, methods for the estimation of the. <i>Van Slyke and Hart</i>	29,	150

Protopine-bearing plant, a new— <i>Adlumia cirrhosa</i> . Schlotterbeck.....	24,	249
Pseudodithiobiurets, on some. Johnson.....	30,	167
Pseudoethylureas, on benzoylbenzylurea, benzoyl- <i>p</i> -tolylurea and the corresponding: a correction. Wheeler and Johnson.....	27,	218
Pseudothiohydantoins, desmotropism in the. Johnson and Ambler.....	48,	197
— on the molecular rearrangement of thiocyanacetanilides into labile; and on the molecular rearrangement of the latter into stable isomers. Wheeler and Johnson.....	28,	121
Pseudothiourea, some condensation products of a substituted: synthesis of 1-methyluracil. Researches on pyrimidines. XX. Johnson and Heyl.....	37,	628
Pseudothioureas, on some condensation products of the: synthesis of uracil, thymine and similar compounds. Wheeler and Merriam.....	29,	478
Pulfrich refractometer, a method for determining the index of refraction of solid hydrocarbons with the. Index of refraction of the solid hydrocarbons in petroleum. Mabery and Shepherd.....	29,	274
Purifying and drying organic liquids by wiping, a method for. Jackson and Fiske.....	44,	438
Purine derivatives from 4-methylcytosine, on the formation of. Researches on pyrimidines. XLI. Johns.....	41,	58
Purines, researches on: II. On an isomer of xanthine; 2,8-dioxypurine. Johns.....	45,	79
— from ureapyrimidines, on the formation of. Researches on pyrimidines. XVI. Johnson and McCollum.....	36,	149
Purpuric acid and of murexide, the constitution of. Slimmer and Stieglitz.....	31,	661
Pyridine and cobalt chloride, equilibrium in the system: Pearce and Moore.....	50,	218
— series, physicochemical investigations in the. Constam and White.....	29,	1
Pyrimidines, researches on:		
V. 5-Methylcytosine. Wheeler and Johnson.....	31,	591
VI. Synthesis of 5-methyl-6-oxy-2-aminopyrimidine. Johnson and Clapp.....	32,	130
VII. 2-Oxy-4,6-diaminopyrimidine. Wheeler and Jamieson.....	32,	342
VIII. The structure of some substitution products. Wheeler and Bristol.....	33,	437

IX. Action of potassium thiocyanate on some imide chlorides. <i>Wheeler and Bristol</i>	33,	448
X. The action of aqueous and alcoholic ammonia and aniline on some halogen and mercaptopyrimidines. <i>Johnson and Johns</i>	34,	175
XI. 6 - Oxy - 5 - amino - 2-ethylmercaptopyrimidine. <i>Johnson</i>	34,	191
XII. On 2,5-diamino - 6 - oxypyrimidine. <i>Johnson and Johns</i>	34,	554
XV. The action of potassium thiocyanate upon imide chlorides. <i>Johnson and McCollum</i>	36,	136
XVI. On the formation of purines from ureaprimidines. <i>Johnson and McCollum</i>	36,	149
XVII. On 5-nitrocytosine and its reduction to 2-oxy-5,6-diaminopyrimidine. <i>Johnson, Johns and Heyl</i>	36,	160
XIX. Synthesis of uracil-5-carboxylic acid. <i>Wheeler, Johnson and Johns</i>	37,	392
XX. Some condensation products of a substituted pseudothiurea: synthesis of 1-methyluracil. <i>Johnson and Heyl</i>	37,	628
XXI. The action of methyl iodide on 6-oxy-2-anilinopyrimidine and the synthesis of 2-anilino-pyrimidine. <i>Johnson and Heyl</i>	38,	237
XXIII. Uracil-4-carboxylic acid. <i>Wheeler</i>	38,	358
XXVI. Synthesis of cytosine-5-carboxylic acid. <i>Wheeler and Johns</i>	38,	594
XXVII. Synthesis of thymine-5'-carboxylic acid. <i>Johnson and Speh</i>	38,	602
XXVIII. Synthesis of 4-methyluracil-5-acetic acid. <i>Johnson and Heyl</i>	38,	659
XXX. The action of nitric acid on 2,6-dioxypyrimidines. Oxynitrohydrothymine. <i>Johnson</i>	40,	19
XXXV. The action of potassium thiocyanate upon some imide chlorides. <i>Johnson and Storey</i>	40,	131
XXXVI. Synthesis of cytosine-5-carboxamide. <i>Wheeler and Johns</i>	40,	233
XXXVII. Synthesis of 4-methylcytosine. <i>Johns</i>	40,	348
XXXVIII. Syntheses of some benzyl derivatives of uracil and thymine. <i>Johnson and Derby</i>	40,	444
XXXIX. Syntheses of new derivatives of 5-hydroxyuracil (isobarbituric acid). <i>Johnson and Jones</i>	40,	538
XL. The thio derivatives of uracil and the preparation of uracil in quantity. <i>Wheeler and Liddle</i> ..	40,	547

<p>XLI. On the formation of purine derivatives from 4-methylcytosine. <i>Johns</i>.....</p> <p>XLIII. The preparation of 3-methyl- and 3-benzyluracil. <i>Wheeler and Johnson</i>.....</p> <p>XLIV. The preparation of 1,4-dimethyluracil and of the monobenzyl derivatives of 4-methyluracil. <i>Wheeler and McFarland</i>.....</p> <p>XLV. Sulphur derivatives of 5-hydroxyuracil: preparation of 5-benzylmercaptouracil and 5-benzylmercaptocytosine. <i>Johnson and Guest</i>.....</p> <p>XLVI. Dimethyl derivatives of 2-aminopyrimidine. Preparation of 5-methyl-2-methylaminopyrimidine. <i>Johnson and Mackenzie</i>.....</p> <p>XLVII. The action of methyl iodide and benzyl chloride upon 4-methyl-2-oxy-6-methylmercaptopyrimidine. <i>Wheeler and McFarland</i>.....</p> <p>XLVIII. Synthesis of 5-cyanouracil. <i>Johnson</i>...</p> <p>XLIX. The thio derivatives of thymine and the preparation of thymine. <i>Wheeler and McFarland</i></p> <p>L. On the condensation of thiourea with esters of allylmalonic acid and some alkyl-substituted allylmalonic acids. <i>Johnson and Hill</i>.....</p> <p>LIII. The condensation of ethyl formate and diethyl oxalate with some pyrimidinethioglycolates. <i>Johnson and Shepard</i>.....</p> <p>LIV. The condensation of urea and guanidine with esters of allylmalonic and some alkyl-substituted allylmalonic acids. <i>Johnson and Hill</i>.....</p> <p>LVI. The action of hydroxylamine on 4-methyl-6-oxypyrimidine-2-oxalothioglycolic acid. α-Hydroximido-α-mercaptopropionic acid. <i>Johnson and Shepard</i>.....</p> <p>LVII. The action of potassium thiocyanate on primary halides. <i>Johnson and Hill</i>.....</p> <p>LVIII. The oximes of some thioglycolide compounds and their behavior on reduction. <i>Johnson and Moran</i>.....</p> <p>LIX. Barbituryl- and 2-thiobarbituryl-5-acetic acids. <i>Johnson and Kohmann</i>.....</p> <p>LX. Alkylation with benzyl chloride. <i>Johnson and Zee</i>.....</p> <p>Pyrimidinethioglycolates, the condensation of ethyl formate and diethyl oxalate with some. Researches on pyrimidines. LIII. <i>Johnson and Shepard</i>...</p> <p>Pyrocatechol, on the action of chloride of iodine on. <i>Jackson and Boswell</i>.....</p>	<p>41,</p> <p>42,</p> <p>42,</p> <p>42,</p> <p>42,</p> <p>42,</p> <p>42,</p> <p>42,</p> <p>43,</p> <p>45,</p> <p>46,</p> <p>46,</p> <p>46,</p> <p>48,</p> <p>48,</p> <p>48,</p> <p>49,</p> <p>49,</p> <p>46,</p> <p>35,</p>	<p>58</p> <p>30</p> <p>101</p> <p>271</p> <p>353</p> <p>431</p> <p>505</p> <p>19</p> <p>356</p> <p>345</p> <p>537</p> <p>279</p> <p>296</p> <p>307</p> <p>184</p> <p>287</p> <p>345</p> <p>519</p>
--	---	--

— in presence of alkalis, action of picryl chloride on. <i>Hillyer</i>	23,	125
Pyromucylacetate, on ethyl (preliminary paper.) <i>Torrey</i> and <i>Zanetti</i>	36,	539
Pyrro- α,β' -diazole derivatives: on the action of phenyl- hydrazine on acylthiocarbamic and acylimidothio- carbonic esters. <i>Wheeler</i> and <i>Beardsley</i>	27,	257
Pyrrolidinecarboxylic acid, the action of potassium thio- cyanate on. 2-Thiohydantoin-4-propionic acid. Hydantoins. X. <i>Johnson</i> and <i>Guest</i>	47,	242
QUINHYDRONE and phenoquinone, on the dissociation of. <i>Torrey</i> and <i>Hardenbergh</i>	33,	167
Quinones and tertiary amines, addition compounds of. <i>Jackson</i> and <i>Clarke</i>	34,	441
RACEMIC compounds and stereoisomers. <i>Cooper</i>	23,	255
Racemization of optically active hydantoin derivatives and related substances as the results of tautomeric change, the catalytic. <i>Dakin</i>	44,	48
Radioactivity of erbium, potassium and rubidium com- pounds, experiments on the. <i>Strong</i>	42,	147
Radiomicrometer, a quantitative study of absorption spec- tra by means of the: <i>Guy</i> and <i>Jones</i>	50,	257
— The absorption spectra of solutions as affected by temperature and by dilution. <i>Jones</i> and <i>Guy</i> ..	49,	1
— the absorption of light by water changed by the presence of strongly hydrated salts, as shown by the —new evidence for the solvate theory of solution. <i>Guy</i> , <i>Schaeffer</i> and <i>Jones</i>	49,	265
Radium on the decomposition of hydriodic acid, the influ- ence of. <i>Creighton</i> and <i>Mackenzie</i>	39,	474
— and the periodic system, the atomic weight of. <i>Jones</i>	34,	467
— content of some Alabama coals, the. <i>Lloyd</i> and <i>Cunningham</i>	50,	47
Rancidity of fats, on the. <i>Nagel</i>	23,	173
α -Rays, the ozonization of oxygen by. <i>Lind</i>	47,	397
Reducing agent for the preparation of thiophenol, a new. <i>Winter</i>	31,	572
— agents, ferrous salts and other: and a method for determining hydrogen peroxide. <i>Mathewson</i> and <i>Calvin</i>	36,	113
— enzymes, the. <i>Pozzi-Escot</i>	29,	517

Reduction of nitrates by certain plant extracts and metals and the accelerating effect of certain substances on the progress of the reduction, on the. <i>Kastle and Elvove</i>	31,	606
—— and oxidation in the animal organism and the toxic action of powerful reducing and oxidizing substances. <i>Kastle and Elvove</i>	31,	195
Refraction, a periodic relation between the atomic weights and the index of. <i>Bishop</i>	35,	84
—— of solid hydrocarbons with the Pulfrich refractometer, a method for determining the index of. Index of refraction of the solid hydrocarbons in petroleum. <i>Mabery and Shepherd</i>	29,	274
Refractive indices of solutions of the cadmium halides, a study of the. <i>Getman and Gilroy</i>	48,	138
—— of some solutions, a study of the. <i>Getman and Wilson</i>	40,	468
Refractometer, note on solubility determinations with the. <i>Getman and Wilson</i>	41,	344
Reports:		
Albumin, on the present state of the chemistry of. <i>Remsen</i>	27,	147
Alcohol and artificial silk from cellulose, the preparation of. <i>Gilpin</i>	43,	466
Algal wax and its relationship to petroleum. <i>Waters</i>	28,	78
Alkali metals, oxides of the. <i>Renouf</i>	37,	286
Alkali and alkaline earth metals, recent work on the derivatives of. <i>Renouf</i>	27,	487
Alkylation of metallic cyanides, the. <i>Gilpin</i>	37,	543
Amino acids, polypeptides and proteids. <i>Tingle</i> ..	35,	535
Ammonia a weak tribasic acid. <i>Jones</i>	24,	102
Ammonium, on the existence of. <i>Waters</i>	27,	77
Ammonium amalgam. <i>Frazer</i>	25,	431
Ammonium compounds, the stereoisomerism of substituted. <i>Tingle</i>	35,	189
Argon from air by means of calcium carbide, preparation of. <i>Rouiller</i>	41,	159
Argon and its companions. <i>Ramsay and Travers</i> ..	25,	156
Argon-helium type, gases of the. <i>Gilpin</i>	21,	538
Asymmetric metallic compounds, molecularly. <i>Werner</i>	49,	314
Atmosphere, combustible gases in the. <i>Gilpin</i>	25,	344
Atmosphere, gases of the. <i>Gilpin</i>	21,	446
Atomic structure, a recent view of. <i>Gilpin</i>	25,	340

Reports:

Atomic theory which correlates chemical and crystalline structure and leads to a demonstration of the nature of valency, a development of the.		
<i>Swartz</i>	37,	638
Atomic weights, international. <i>Richards</i> , 24, 377; 25,		335
Atomic Weights of the German Chemical Society,		
Report of the Committee on. <i>Reese</i>	21,	455
Avogadro's theory, the evolution of. <i>Remsen</i>	50,	171
<i>Bacillariaceae</i> and its relation to petroleum, the wax		
of the. <i>Waters</i>	23,	176
Barium sulphate in gravimetric analysis. <i>Horn</i> ..	27,	495
Brownian movement and the size of the molecules,		
the. <i>Perrin</i>	49,	406
Calcium and some of its compounds, metallic. <i>Gil-</i>		
<i>pin</i>	24,	96
Camphor. <i>Blanc</i>	43,	255
Carbon assimilation in green plants, the mechan-		
ism of. <i>Loevenhart</i>	37,	196
Carbon dioxide from solutions of compounds of		
silicon, zirconium, bismuth and thorium, produc-		
tion of. <i>Ramsay</i>	42,	150
Carbon suboxide. A new oxide of carbon, C_3O_2 .		
<i>Tingle</i>	35,	534
Centrifugal force, on the change of concentration		
of solutions and on the crystallization of dissolved		
substances under the influence of. <i>Jones</i>	33,	430
Chlorine and hydrogen, the interaction of. <i>Gilpin</i> .	36,	612
Colloidal solutions of metals in organic solvents.		
<i>Renouf</i>	35,	187
Constitution and the absorption of light, chemical.		
<i>Strong</i>	44,	85
Crystalline form and chemical constitution, relation		
between. <i>Swartz</i>	42,	158
Degradation of the elements, the. <i>Jones</i>	39,	556
Dissociating power of different solvents, the. A		
summary. <i>Jones</i>	25,	232
Electrification and chemical reactions and the prop-		
erties of condensation nuclei, the relation between.		
<i>Strong</i>	50,	100
Esterification. <i>Tingle</i>	35,	368
Ethyl alcohol, preparation of pure. <i>Tingle</i>	35,	286
Fats, industry and analysis of the. <i>Lewkowitsch</i> ..	43,	428
Fermentation without cells. <i>Renouf</i>	21,	453
Fluosilicic acid as a preservative of manure. <i>Gilpin</i>	25,	166
Gadolinium.....	23,	447

Reports:

Glyoxal. <i>Tingle</i>	37,	415
Gold, and on the purple of Cassius, on aqueous solutions of metallic. <i>Reese</i>	21,	174
Grignard reaction, the. <i>Waters</i>	33,	304
Grignard's reaction. <i>Tingle</i>	35,	90
Hodgkins medal, the. <i>Gilpin</i>	21,	537
Hydrocyanic acid, the dissociating power of liquid. <i>Jones</i>	27,	154
Hydrogen, on higher superoxides of. <i>Caspari</i>	24, 281; 25,	336
Hydrogen, solid. <i>Gilpin</i>	22,	493
Hydrogen, the liquefaction of. <i>Travers</i>	25,	160
Hydrogen as determined by a rhodium-platinum resistance thermometer, the boiling point of liquid. <i>Remsen</i>	22,	239
Hydrogen persulphides. <i>Renouf</i>	41,	155
Indigo, artificial. <i>Gilpin</i>	21,	448
Industrial chemistry, notes on. <i>Gilpin</i>	24,	530
Industry, recent advances in chemical. <i>Renouf</i> ...	39,	791
Inorganic ferments, on. <i>Jones</i>	23,	449
Ionium, the parent of radium. <i>Turner</i>	39,	653
Iron carbonyl, the physical and chemical properties of. <i>Hoffman</i>	35,	469
Keto-enol tautomerism. <i>Rouiller</i>	49,	301
Krypton, on. <i>Waters</i>	24,	95
Lavoisier statue in Paris, the. <i>Gilpin</i>	25,	435
Liquid air machines. <i>Gilpin</i>	21,	538
Mantles, the luminosity of. <i>Gilpin</i>	29,	387
Molecular theory, the. <i>Arrhenius</i>	48,	536
Molecular-weight determinations in a vacuum, Kraft's work on. <i>Renouf</i>	33,	506
Molecular weights of pure liquids and solids, a method of determining: observations upon the boiling points of some organic liquids. <i>Taylor</i> ..	32,	85
Niton ("radium emanation") and the disintegration theory, the density of. <i>Gray and Ramsay</i> ..	47,	251
Nitrogen, a chemically active modification of. <i>Lovelace</i>	49,	158
Nitrogen, ammonium bromide and the atomic weight of.....	25,	167
Nitrogen, the atomic weight of. <i>Gilpin</i>	35,	458
Nitrogen, the industrial fixation of. <i>Renouf</i>	44,	544
Nitrogen with reference to the manufacture of nitrates and nitric acid, the oxidation of atmospheric. <i>Renouf</i>	35,	358

Reports:

Nitrogen compounds, asymmetric optically active.		
<i>Remsen</i>	23,	265
Osmotic pressure, theories of. <i>Lovelace</i>	39,	546
Oxygen, quadrivalence of. <i>Gilpin</i>	22,	242
Oxygen into ozone at a high temperature and the oxidation of nitrogen, the change of. <i>Renouf</i>	36,	93
Oxygen bases, the. <i>Howe</i>	27,	311
Ozone, the density and molecular weight of.		
<i>Caspari</i>	25,	432
Ozone on organic compounds, the action of. <i>Tingle</i>	35,	463
Petroleum, the origin of. <i>Gilpin</i>	41,	67
Platinum group, recent advances in our knowl- edge of the metals of the, 1897-1903. <i>Howe</i>	31,	63
Polonium and radium. <i>Caspari</i>	23,	262
Positive rays, some further applications of the method of. <i>Thomson</i>	50,	243
Purine group, the chemistry of the. <i>Norris</i>	26,	463
Radioactive barium. <i>Caspari</i>	24,	98
Radioactive elements, recent progress in our knowledge of the. <i>Strong</i>	42,	541
Radioactive substances, the new. <i>Caspari</i>	25,	77
Radioactivity. <i>Marckwald</i> and <i>Turner</i>	41,	515
Radioactivity, recent research on. <i>Curie</i>	31,	410
Radio-lead. <i>Waters</i>	27,	74
Radiothorium—a new radioactive element. <i>Jones</i>	34,	585
Radium emanation on solutions of copper salts, action of. <i>Curie</i> and <i>Gleditsch</i>	40,	485
Rocks, the action of water upon. <i>Gilpin</i>	25,	511
Royal Institute of Great Britain, centenary com- memoration lecture. <i>Dewar</i>	25,	161
Rusting of iron, the. <i>Gilpin</i>	35,	88
Saltpeter by the process of the Badische Anilin- und Soda-Fabrik, preparation of. <i>Rouiller</i>	41,	75
Silicides, Moissan's work on. <i>Renouf</i>	29,	282
Sodium and chlorine, a revision of the atomic weights of. <i>Gilpin</i>	34,	99
Specific heat of solutions, on a method for de- termining the; contribution to the study of hy- drates. <i>Stine</i>	37,	112
Spectroscope in organic chemistry, the. <i>Dobbie</i>	50,	231
Stibine and the allotropic varieties of arsenic and antimony. <i>Gilpin</i>	35,	287
Sulphur, the molecular weight of. <i>Lindsay</i>	27,	220
Sulphur compounds, asymmetric optically active.		
<i>Frazer</i>	25,	167

Reports:

Sulphuric acid, improvements in the manufacture of. <i>Lunge</i>	23,	83
Sulphuric acid in the presence of iron, gravimetric determination of. <i>Horn</i>	27,	500
Sulphuric acid and its preparation by the contact method. <i>Gilpin</i>	27,	227
Sulphur perfluoride, SF ₆ , on. <i>Caspari</i>	24,	99
Tautomerism and steric hindrance. <i>Tingle</i>	36,	213
Technical chemistry, the year's advance in. <i>Smith</i>	23,	520
Tellurium, the atomic weight of. <i>Gilpin</i>	39,	658
Thiophosphoric acid and thiophosphates. <i>Renouf</i> ..	37,	107
Triphenylmethyl question, the. <i>Cobb</i>	33,	511
Unsaturated hydrocarbons, a new method for the preparation of. <i>Gilpin</i>	27,	494
Water, on the blue color of. <i>Remsen</i>	22,	240
Weight in chemical reaction, an investigation to determine whether there is change in. <i>Jones</i>	36,	100
Werner's theory of the constitution of inorganic compounds. <i>Howe</i>	22,	312
Resorcinol, some disazo and trisazo derivatives of. <i>Orndorff and Ray</i>	44,	1

Reviews:

Abstract-bulletin of the physical laboratory of the National Electric Lamp Association.....	49,	429
Abstracts, Chemical, Vol. I, No. 1. <i>Noyes and Waters</i>	37,	287
Acetylen, das. <i>Vogel</i>	46,	115
Acetylene. <i>Lewes</i>	25,	85
Acetylene, lighting by, 2nd ed. <i>Gibbs</i>	21,	277
Aequivalentvolumen und Atomgewicht, die Beziehung zwischen. <i>Borchers</i>	33,	213
Aetherischen Oele, die. <i>Gildemeister and Hoffmann</i>	25,	168
Affinität und ihre Messung, die chemische. <i>Sackur</i>	41,	81
Affinities of the elements, researches on the. <i>Martin</i>	35,	292
Agricultural analysis, principles and practice of, <i>Wiley</i>	Vol. I, 37, 659; Vol. II, 42,	99
Agricultural chemistry, principles of. <i>Fraips</i>	50,	337
Agriculturchemie, kleines Handwörterbuch der. <i>Passon</i>	44,	481
Air, water and food from a sanitary standpoint. <i>Richards and Woodman</i>	25,	347

Reviews:

Akkumulatoren, die Herstellung der, 3te Aufl. <i>Grünwald</i>	31,	82
Albumens, chemistry of the. <i>Schryver</i>	36,	417
Alchemy and beginners of chemistry, the story of. <i>Muir</i>	30,	164
Alcoholic fermentation. <i>Harden</i>	46,	414
Alicykklischen Verbindungen, Chemie der. <i>Aschan</i>	35,	545
Alimentaires, analyse des matières, 2me éd. <i>Girard</i>	32,	516
Aliments, les industries de la conservations des. <i>Rocques</i>	36,	615
Alkalichloridzerlegung mit flüssigen Metallkathoden, elektrolytische. <i>Lucion</i>	37,	204
Alkalichloridzerlegung mit starren Metallkathoden, die elektrolytische. <i>Billiter</i>		
.....1ter Teil, 49, 74; 2ter Teil,	50,	56
Alkalimetalle, die Elektrometallurgie der. <i>Becker</i> ..	32,	89
Alkaloids, the plant. <i>Henry</i>	50,	57
Alkaloids, the vegetable. <i>Pictet and Biddle</i>	32,	617
Allgemeinen Chemie, Grundriss der. <i>Ostwald</i> ...		
.....3te Aufl., 22, 414; 4te Aufl.,	42,	291
Allgemeinen Chemie, Lehrbuch der, 2ter Band, 2ter Teil, 2te Aufl. <i>Ostwald</i>	30,	84
Allgemeine und anorganische Chemie, Einführung in die. <i>Smith and Stern</i>	42,	560
Alliages métalliques, leçons sur les. <i>Cavalier</i>	43,	389
Aluminium in vegetable products, animal products, and natural waters, the occurrence of. <i>Langworthy and Austen</i>	32,	403
Aluminium and its industrial use, the production of. <i>Minet and Waldo</i>	35,	548
Aluminium Industrie, die. <i>Winteler</i>	31,	192
Aluminiums, die Gewinnung des. <i>Minet and Abel</i> .	30,	165
Amerikanisches Hochschulwesen. <i>Böttger</i>	37,	198
Ammoniak als Lösungsmittel, verflüssigtes. <i>Bronn</i>	35,	192
Ammoniaks zu Salpetersäure und Salpetriger- säure, die Oxydation des. <i>Donath and Indra</i>	50,	476
Analyse, Einleitung in die chemische, 1tes Heft, 12te u. 13te Aufl. <i>Medicus</i>	34,	474
Analyse, Post's chemisch-technische, 3te Aufl. <i>Neumann</i>		
.....1ter Band, 1tes Heft, 2ter Band, 2tes Heft, 37, 655; 1ter Band, 3tes Heft, 39, 662; 4tes Heft, 40, 214; 2ter Band, 2tes Heft, 39, 663; 3tes Heft, 41, 448; 4tes Heft, 44,		563

Reviews:

- Analyse chimique appliquée aux essais industriels, traité complet d', 2me éd. française. *Post, Neumann, Chenu and Pellet*..... Tome 1er, 4me fasc., 46, 529; tome 2nd, 3me fasc., 45, 415; tome 3me, 1er fasc., 47, 532; 2nd fasc., 50, 492
Post, Neumann and Gauthier..... 40, 129
- Tome 2nd, 1er fasc Analyse des métaux par électrolyse. *Hollard and Bertiaux*.. 37, 114; 2me éd., 43, 565
- Analyse des substances minérales, traité d'. *Carnot*..... Vol. I, 21, 179; Vol. II, 31, 683
- Analysis, a handbook of organic. *Clarke*..... 48, 100
- Analysis, a manual of chemical. *Newth*..... 21, 99
- Analysis, an introduction to chemical. *Rockwood*.
 27, 235; 2nd ed., 34, 472; 3rd ed., 44, 200
- Analysis, commercial organic. *Allen*.....
 2nd ed., Vol. IV, 21, 278
- Allen and Leffmann*..... 3rd ed., Vol. I, 21, 95; 24, 383; Vol. II, Part 1, 21, 280; Part 2, 24, 383
- Allen and Tankard*..... Part 3, 39, 557
- Allen and Matthews*..... Vol. III, Part 1, 25, 88
- Analysis, Allen's commercial organic, 4th ed., *Leffmann and Davis*. Vol. I, 44, 479; Vol. II, 45, 324
- Leffmann and Sadtler*..... Vol. III, 45, 324
- Davis and Sadtler*..... Vol. IV, 46, 308; Vol. V, 49, 170; Vol. VI, 48, 261; Vol. VII, 50, 190
- Analysis, elementary organic. *Benedict*..... 28, 328
- Analysis, introduction to chemical. *Rüdorff and Gibson*..... 33, 433
- Analysis, manual of chemical. *Prost and Cruickshank*..... 34, 473
- Analysis, methods in chemical. *Gooch*..... 50, 335
- Analysis, methods of organic. *Sherman*..... 35, 193
- Analysis, percentage tables for elementary. *Guttmann*..... 34, 260
- Analysis, smaller chemical. *Newth*..... 38, 252
- Analysis, technical methods of chemical, Vol. II. *Lunge and Keane*..... 48, 190
- Analysis, techno-chemical. *Lunge and Cohn*..... 34, 168
- Analyst's laboratory companion, the, 4th ed. *Johnson*..... 48, 468
- Analytical chemistry. *Treadwell and Hall*.....
 Vol. I, 30, 244; Vol. II, 33, 211; Vol. II, 2nd ed., 45, 413
- Analytical chemistry, a short manual of. *Muter*.
 2nd American ed., 21, 182; 4th ed., 36, 415

Reviews:

Analytical chemistry, a text-book of elementary, 3rd ed. <i>Long</i>	37,	547
Analytical chemistry, theoretical principles of the methods of. <i>Chesneau, Lincoln and Carnahan</i> ...	44,	562
Analytical department for 1910-12, report of Lehn and Fink's. <i>North and Schortemeyer</i>	50,	134
Analytical notes for 1912, Evans'. <i>Evans' Sons, Lescher and Webb</i>	50,	134
Analytique, les bases physicochimiques de la chimie. <i>Herz and Philippi</i>	43,	184
Analytischen Chemie, ausgewählte Methoden der. <i>Classen</i> 1er Band, 25, 437; 2ter Band,	31,	188
Analytischen Chemie, die indirekten Methoden der. <i>Fages y Virgili and Mecklenburg</i>	47,	182
Analytischen Chemie, die wissenschaftlichen Grundlagen der. <i>Ostwald</i>		
.....3te Aufl., 26, 93; 4te Aufl.,	33,	605
Analytischen Chemie, Stand und Wege der. <i>Böttger</i> .	48,	99
Animal nutrition, the principles of. <i>Armsby</i>	30,	445
Annuaire pour l'an 1911.....	45,	616
Annual, Van Nostrand's chemical. <i>Olsen</i>		
.....1907, 37, 657; 1909,	45,	615
Anorganische Chemie für Studierende der Medi- zin, Vorlesungen über. <i>Cohen and van Romburgh</i>	37,	290
Anorganische Fermente. <i>Bredig</i>	25,	517
Anorganischen Chemie, Grundlinien der. <i>Ost- wald</i>	25, 83; 2te Aufl. 32,	407
Anorganischen Chemie, Grundriss der. <i>Oppen- heimer</i>	6te Aufl., 47, 86; 7te Aufl. 49,	433
Anorganischen Chemie, Handbuch der Arbeits- methoden in der, 1ter Band. <i>Stähler</i>	50,	492
Anorganischen Chemie, Karl Heumann's Anleit- ung zum Experimentieren bei Vorlesungen über. <i>Kühling</i>	31,	684
Anorganischen Chemie, Lehrbuch der. <i>Erd- mann</i>		
2te Aufl., 25, 250; 3te Aufl., 29, 286; 4te Aufl.,	36,	617
<i>Holleman and Manchot</i>	27,	159
Anorganischen Chemie, neuere Anschauungen auf dem Gebiete der. <i>Werner</i>	35, 295; 3te Aufl., 50,	489
Apparatfärberei der Baumwolle und Wolle, die. <i>Heuser</i>	50,	473
Applied chemistry, a dictionary of, revised ed. <i>Thorpe</i>	Vol. I, 48, 191;	
Vol. II, 48, 259; Vol. III, 49, 257; Vol. IV,	50,	181

Reviews:

Applied chemistry, elementary. <i>Allyn</i>	49,	168
Applied electrochemistry. <i>Thompson</i>	47,	357
Applied electrochemistry, the principles of. <i>Allmand</i>	50,	475
Arithmetic, a text-book of chemical. <i>Wells</i>	35,	96
Arithmetic of chemistry, the. <i>Waddell</i>	23,	275
Asphalt pavement, the modern, 2nd ed. <i>Richardson</i>	44,	108
Assaying, a manual of. <i>Miller</i>	25,	249
Assaying and metallurgical analysis. <i>Rhead and Sexton</i>	30,	82
Assaying and metallurgical laboratory experiments, notes on. <i>Lodge</i>	33,	606
Atom, the study of the. <i>Venable</i>	33,	516
Atomgewichte, experimentelle Untersuchungen über. <i>Richards and Koppel</i>	43,	564
Atomistik, Grundriss einer Entwicklungsgeschichte der chemischen. <i>Ehrenfeld</i>	36,	527
Atomprozente und Gewichtsprozente. <i>Hoffmann</i> .	49,	428
Autoxydation, kritische Studien über die Vorgänge der. <i>Engler and Weissberg</i>	33,	199
Avogadro and Dalton. <i>Meldrum</i>	34,	353
Bacteriological and enzyme chemistry, an introduction to. <i>Fowler</i>	46,	415
Bakterien, die Zersetzung stickstofffreier Substanzen durch. <i>Emmerling</i>	29,	87
Beccquerel rays and the properties of radium, the. <i>Strutt</i>	33, 609; 2nd ed., 36,	617
Beet-sugar making and its chemical control. <i>Nikaido</i>	44,	203
Beet-sugar manufacture. <i>Classen, Hall and Rolfe</i> .	37,	423
Beet-sugar manufacture and refining. <i>Ware</i>	Vol. I, 35, 377; Vol. II, 39,	311
Benzoltabellen. <i>Schwalbe</i>	30,	443
Berlin, das neue Technisch-Chemische Institut der Königlichen Technischen Hochschule zu. <i>Witt</i>	36,	418
Beryllium, the chemistry and literature of. <i>Parsons</i>	42,	561
Bibliography of chemistry, a select. <i>Bolton</i>	1st suppl., 21, 539; 2nd suppl., 33,	605
Biochemie, descriptive. <i>Fränkel</i>	39,	799
Bittersalz und Chlormagnesium, die Fabrikation von. <i>Berge</i>	48,	261
Blowpipe analysis, the elements of. <i>Gelman</i>	22,	331

Reviews:

Boiler-waters. <i>Christie</i>	38,	124
Borax and boric acid on the human system, third treatise on the effects of. <i>Liebreich</i>	36,	324
Botany and pharmacognosy, a text-book of. <i>Kraemer</i> . 2nd ed., 38, 655; 3rd ed., 42, 98; 4th ed.,	45,	614
Brass and the non-ferrous alloys, the technical analysis of. <i>Price and Meade</i>	47,	455
Bread-making, the chemistry of. <i>Grant</i>	48,	194
Bread-making, the technology of, American ed. <i>Jago and Jago</i>	47,	180
Brechungsindices, Tafeln zum Gebrauche bei der Bestimmung von. <i>Eijkman</i>	48,	551
Brewer's analyst, the. <i>Bailey</i>	41,	446
Brewing students, laboratory studies for. <i>Brown</i> ...	34,	354
Briefwechsel zwischen J. Berzelius and F. Wöhler. <i>Wallach</i>	30,	433
Brom und Iod, über die elektrolytische Gewinn- nung von. <i>Schlötter</i>	38,	657
Broms in die Kaliindustrie, die Gewinnung des. <i>Mitreiter</i>	45,	217
Butter, on the composition of Dutch. <i>van Ryn</i> ...	27,	240
Calculation, exercises in chemical. <i>Coward and</i> <i>Perkins</i>	49,	78
Calculations, tables for chemical. <i>Wells</i>	31,	590
Calculations of general chemistry, the. <i>Hale</i> ...	43,	565
Cane sugar manufacturers and their chemists, a handbook for. <i>Spencer</i>	36,	111
Carbohydrates and the glucosides, the simple. <i>Armstrong</i>	44,	560
Carbon compounds, a scheme for the detection of the more common classes of. <i>Weston</i>	34,	168
Cellulose, die Chemie der. <i>Schwalbe</i>	1te Hälfte, 45, 218; 2te Hälfte, 48,	192
Cellulose, researches on. <i>Cross and Bevan</i> ...	I, 29, 176; II, 37, 199; III, 49,	77
Cements, action of the salts in alkali water and sea water on. <i>Bates, Phillips and Wig</i>	50,	185
Cement testing, a manual of. <i>Richards and</i> <i>North</i>	49,	432
Chemical exercises for classroom and home study. <i>Williams</i>	30,	538
Chemical experiments. <i>Woodhull and Van Ars-</i> <i>dale</i>	22,	168
Chemical and metallurgical handbook, 2nd ed. <i>Cremer and Bicknell</i>	21,	100

Reviews:

Chemical News, general index to the, Vols. 1-100...	50,	53
Chemical theory, elementary. <i>Wadmore</i>	49,	264
Chemical theory, first principles of. <i>Mathewson</i> ...	43,	92
Chemical theory and calculations. <i>Wilson</i> and <i>Heilbron</i>	50,	132
Chemical theory and calculations, elementary. <i>Knox</i>	49,	337
Chemical works. <i>Dyson</i> and <i>Clarkson</i>	48,	470
Chemie, Jahrbuch der. <i>Meyer</i>.....IX, 24, 467; X, 26, 471; XII, 31, 448; XIII, 33, 433; XIV, 35, 375; XV, 37, 291; XVI, 38, 748; XVII, 42, 370; XIX, 46, 113; XX, 47, 266; XXI, 49,		523
Chemie, Jahrbuch der, General Reigster über die Jahrgänge 1891 bis 1900. <i>Weichelt</i>	31,	448
Chemie, praktische Uebungen zur Einführung in die. <i>Smith, Haber</i> and <i>Stöcker</i>	31,	446
Chemie, Theorien der, 2te Aufl. <i>Arrhenius</i> and <i>Finkelstein</i>	44,	205
Chemie in leichtfasslicher Form, Einführung in die. <i>Lassar-Cohn</i>	23,	88
Chemische Industrie in den Vereinigten Staaten, die. <i>Grossmann</i>	49,	167
Chemischen Industrie, Fortschritte und Prob- leme der. <i>Duisberg</i>	50,	133
Chemisch-optische Untersuchungen. <i>Jellett</i> and <i>Franck</i>	45,	88
Chemisch-technisches Praktikum. <i>Moldenhauer</i> ...	49,	263
Chemistry, a compendium of. <i>Arnold</i> and <i>Mandel</i>	32,	520
Chemistry, a foundation course in. <i>Dodgson</i> and <i>Murray</i>	50,	339
Chemistry, a laboratory. <i>Moore</i>	33,	607
Chemistry, an elementary laboratory course in. <i>Kenrick</i> and <i>DeLury</i>	35,	371
Chemistry, an elementary study of, revised ed. <i>McPherson</i> and <i>Henderson</i>	37,	292
Chemistry, an intermediate course of laboratory work in. <i>Hanson</i> and <i>Dodgson</i>	42,	476
Chemistry, an introduction to modern scientific. <i>Lassar-Cohn</i> and <i>Muir</i>	26,	92
Chemistry, an introduction to the study of, 6th ed. <i>Remsen</i>	26,	387
Chemistry, an introduction to the study of the general principles of. <i>Noyes</i>	30,	84
Chemistry, a text-book of. <i>Noyes</i>	50,	468

Reviews:

Chemistry, a text-book of experimental. <i>Lee</i>	41,	558
Chemistry, a treatise on, new ed. <i>Roscoe</i> and <i>Schorlemmer</i>	Vol. I, 35, 98; Vol. II, 40,	410
Chemistry, contemporary. <i>d'Albe</i>	47,	529
Chemistry, conversations on. <i>Ostwald</i> and <i>Ram-</i> <i>say</i>	Part I, 34,	255
<i>Ostwald</i> and <i>Turnbull</i>	Part II, 35,	543
Chemistry, descriptive. <i>Newell</i>	31,	86
Chemistry, elementary. <i>Arey</i>	23,	361
<i>Godfrey</i>	44,	111
<i>Gordin</i> . Vol. I.....	50,	470
Chemistry, elementary modern. <i>Ostwald</i> and <i>Morse</i>	43,	284
Chemistry, elementary practical, 5th ed. <i>Clowes</i> and <i>Coleman</i>	Part I, 39, 311; Part II, 38,	251
Chemistry, experimental. <i>Newell</i>	24,	468
Chemistry, first year. <i>Segerblom</i>	44,	303
Chemistry, modern. <i>Ramsay</i>	38,	655
Chemistry, outlines of. <i>Kahlenberg</i>	43,	386
Chemistry, practical. <i>Martin</i>	39,	435
<i>Brown</i> and <i>Bengough</i>	6th ed., 50,	473
Chemistry, practical test-book of. <i>Palmer</i>	39,	310
Chemistry, school. <i>Baskerville</i>	22,	330
Chemistry, second year. <i>Hart</i>	35,	370
Chemistry, the elementary principles of. <i>Young</i>	26,	386
Chemistry, the elements of. <i>Muir</i>	32,	611
Chemistry, the fundamental principles of. <i>Ost-</i> <i>wald</i> and <i>Morse</i>	43,	469
Chemistry, the principles of, 3rd English ed. <i>Mendeléeff</i> , <i>Kamensky</i> and <i>Pope</i>	34,	350
Chemistry by experiment, observation and in- duction. <i>Hinds</i>	29,	514
Chemistry for dental students, lecture-notes on. <i>Smith</i>	37,	202
Chemistry for engineering students, practical. <i>Hale</i>	49,	74
Chemistry for the use of students and practi- tioners of medicine, dentistry and pharmacy, a text-book of. <i>Jones</i>	35,	475
Chemistry and metallurgy applied to dentistry. <i>Hall</i>	22,	244
Chemists, famous. <i>Roberts</i>	47,	267
Chimica generale e applicata al' industria, Vol. II. <i>Molinari</i>	44,	202
Chimico-fisica, trattato di. <i>Jones</i> and <i>Giua</i>	49,	341

Reviews:

Chimie pure et appliquée, conférences sur quelques thèmes choisies de la. <i>Arrhenius</i>	48,	548
Chimie et de minéralogie, cours élémentaire de, 2me éd. française. <i>Istrati, Longinescu and Adams</i> .	50,	471
Chinaalkaloide, die Konstitution der. <i>Coman- ducci and Roth</i>	46,	535
Chroms und seiner Verbindungen mit Hilfe des elektrischen Stromes, die Darstellung des. <i>La- Blancord</i>	30,	165
Cidrerie moderne, la. <i>Jacquemin and Alliot</i>	30,	85
Cocoa and chocolate. <i>Whymper</i>	48,	95
Colloids, an introduction to the physics and chemistry of. <i>Hatschek</i>	50,	58
Colloids and the ultramicroscope. <i>Zsigmondy and Alexander</i>	44,	107
Colorists and dyers, the yearbook for, XII. <i>Metz</i>	45,	326
Commerce et de l'industrie, modes opératoires des essais du. <i>Cuniasse and Zwilling</i>	23,	267
Complexes, introduction à la chimie des. <i>Urbain and Sénéchal</i>	50,	489
Composition, the study of chemical. <i>Freund</i>	34,	256
Constantes et données numériques de chimie, de physique et de technologie, tables annuelles internationales de..... Vol. I, 48, 467; Vol. II,	50,	491
Constitution and some physical properties, the relation between chemical. <i>Stiles</i>	45,	611
Conversion tables, chemical. <i>Battle and Gas- coyne</i>	44,	110
Copper refining, electrolytic. <i>Ulke</i>	33,	98
Cristaux, recherches récentes sur les facies des. <i>Gaubert</i>	47,	530
Critique des corps purs, le point. <i>Mathias</i>	31,	589
Crystallography, essentials of. <i>Kraus</i>	37,	422
Cyanamid. <i>Pranke</i>	50,	339
Cyanide industry, the. <i>Robine, Lenglin and LeClerc</i>	36,	322
Cyanide process, the, 2nd ed. <i>Miller</i>	36,	619
Cyanid-Prozesse zur Goldgewinnung. <i>von Uslar and Erlwein</i>	32,	91
Dairy laboratory guide. <i>Melick</i>	40,	129
Deutschen Reichspatente, die elektrochemischen. <i>Ferchland and Rehländer</i>	37,	547
Deutsches Patentrecht für Chemiker. <i>Ephraim</i> ...	38,	509
Dialyse, Abhandlungen über. <i>Graham and Jordis</i>	47,	268

Reviews:

Diastases, lois générales de l'action des. <i>Henri</i> ...	30,	443
Diazo-compounds, the chemistry of the. <i>Cain</i> ...	41,	76
Diffusion, über die Schichtungen bei. <i>Liesegang</i> ...	40,	414
Disinfection and the preservation of food. <i>Rideal</i> ...	31,	586
Distillation, fractional. <i>Young</i>	31,	682
Drugs and medicines, introduction to the analysis of. <i>Nelson</i>	45,	613
Dyeing, principles of. <i>Fraps</i>	30,	541
Dyeing, the chemistry and physics of. <i>Dreaper</i> ...	37,	420
Dyes, the chemistry of the coal-tar. <i>Fay</i>	46,	534
Dyestuffs, identification of the commercial. <i>Mulli-</i> <i>ken</i>	45,	326
Dyestuffs, the synthetic, 2nd ed. <i>Cain and Thorpe</i> ...	50,	479
Eau dans l'industrie, l'. <i>de la Coux</i>	25,	81
Edlen und die radioaktiven Gase, die. <i>Ramsay</i> ...	42,	292
Eisens, Beiträge zur Kenntniss des elektrochem- ischen Verhaltens des. <i>Foerster</i>	44,	208
Eisens, Elektrometallurgie des. <i>Neumann</i>	38,	509
Eiweisskörper, Chemie der. <i>Cohnheim</i>		
.....2te Aufl., 32, 407; 3te Aufl., 47,		86
Electrical nature of matter and radioactivity, the. <i>Jones</i>	36, 614; 2nd ed., 46,	312
Electric furnace, the. <i>Moissan and Lenher</i>	32,	406
<i>Moissan and de Mouilpied</i>	33,	607
Electroanalysis. <i>Smith</i> ...4th ed., 39, 663; 5th ed., 47,		453
Electrochemistry. <i>Lehfeldt</i>.....Part I, 33,		436
<i>Danneel and Merriam</i>	I, 38,	507
Electrochemistry, a text-book of. <i>LeBlanc, Whit-</i> <i>ney and Brown</i>	38,	656
Electrochemistry, experimental. <i>Hopkins</i>	35,	549
Electrochemistry, outlines of. <i>Jones</i>	27,	239
Electrochemistry, practical. <i>Blount</i>	26,	385
Electrochemistry, text-book of. <i>Arrhenius and</i> <i>McCrae</i>	29,	514
Electrolysis and electrosynthesis of organic com- pounds. <i>Löb and Lorenz</i>	22,	246
Electrolytic conduction, the fundamental laws of. <i>Goodwin</i>	22,	413
Electrolytic dissociation, a short introduction to the theory of. <i>Gregory</i>	34,	474
Electrolytic dissociation and some of its applica- tions, the theory of. <i>Jones</i>	23,	529
Electrolytic dissociation theory, the. <i>Talbot and</i> <i>Blanchard</i>	35,	370
<i>Abegg and von Ende</i>	38,	381

Reviews:

Electrolytic preparations. <i>Elbs and Hutton</i>	31,	590
Electrolytischen Laboratorien, Einrichtungen von.		
<i>Nissenson</i>	29,	395
Electro-metallurgy. <i>Kershaw</i>	43,	94
Electrons. <i>Lodge</i>	39,	309
Elektrische Doppelbrechung der Kohlenstoffver-		
bindungen. <i>Leiser</i>	46,	311
Elektrischen Messungen, die Entwicklung der.		
<i>Fröhlich</i>	34,	590
Elektrizität, die Lehre von der, Band IV, 2te Aufl.		
<i>Wiedemann</i>	22,	330
Elektrizität und Materie. <i>Thomson and Siebert</i> ...	34,	259
Elektroanalytische Schnellmethoden. <i>Fischer</i>	41,	161
Elektrochemie, Einführung in die. <i>Gerdes</i>	30,	82
Elektrochemie, Grundriss der, 2te Aufl. <i>Jahn</i>	36,	417
Eletrochemie, Grundriss der reinen und angewand-		
ten. <i>Ferchland</i>	31,	189
Elektrochemie, Handbuch der. <i>Borchers, et al.</i> ...	29,	618
Elektrochemie, Jahrbuch der. <i>Nernst and Borch-</i>		
<i>ers</i>	VII, 27,	79
<i>Danneel</i>	VIII, 29, 515;	
IX, 33, 199; X, 34, 260; XI, 36, 525; XII, 42,		558
<i>Danneel and Meyer</i>	XIII, 50,	55
Elektrochemie der organischen Verbindungen, die		
3te Aufl. <i>Löb</i>	35,	374
Elektrochemiker, sowie technische Chemiker und		
Physiker, Kalender für, 1904.....	31,	586
Elektrochemische Industrie Deutschlands, die.		
<i>Ferchland</i>	32,	408
Elektrochemische Industrie Frankreichs, die.		
<i>Pitaval and Huilh</i>	49,	428
Elektrochemischen Verfahren der chemischen Gross-		
Industrie, die. <i>Billiter</i>		
..... 1ter Band, 43, 472; 2ter Band,	48,	97
Elektrochemisches Praktikum. <i>Lorenz</i>	26,	470
Elektrochemische Umformer. <i>Zacharias</i>	47,	181
Elektrolyse geschmolzener Salze. <i>Lorenz</i>		
... 1ter Teil, 35, 373; 2ter Teil, 35, 547; 3ter Teil,	36,	527
Elektrolytische Darstellung chemischer Präparate,		
Uebungsbeispiele für die. <i>Elbs</i>	29,	618
Elektrolytischem Wege und die Elektrogravüre,		
Herstellung von Metallgegenständen auf. <i>Pfan-</i>		
<i>hauser</i>	29,	395
Elektrolytische Zähler. <i>Norden</i>	42,	182

Reviews:

Elektromagnetische Schwingungen und Wellen. <i>von Geitler</i>	35,	193
Elektro-Metallurgie, 3te Aufl., 1te Abt. <i>Borchers</i>	29,	396
Elektromotorischer Kräfte galvanischer Ketten mit wässerigen Elektrolyten, Messungen. <i>Abeeg</i> , <i>Auerbach</i> and <i>Luther</i>	48,	382
Elementaranalyse, Anleitung zur vereinfachten, 2te Aufl. <i>Dennstedt</i>	37,	289
Elettricità e materia. <i>Thomson</i> and <i>Fae</i>	34,	587
Energetische Imperativ, der, 1te Reihe. <i>Ostwald</i>	49,	163
Engineer, the Chemical, Vol. I, No. 1.....	33,	213
Engineering, the elements of chemical. <i>Grossman</i>	37,	116
Engineering chemistry. <i>Stillman</i>		
.....2nd ed., 25, 517; 3rd ed., 35, 370; 4th ed.,	45,	415
Englischen elektrochemischen Patente, die. <i>Ferch-</i> <i>land</i> 1ter Band, 40, 215; 2ter Band,	42,	291
Entwicklungsgeschichte der Chemie, Vorträge über die. <i>Ladenburg</i>	37,	656
Enzymes and their applications. <i>Effront</i> and <i>Pres-</i> <i>cott</i>	29,	85
Erdöl, das. <i>Engler</i> and <i>von Höfer</i>		
..... 1ter Band, 1te Abt., 48, 472; 2te Abt.,	49,	530
3te Aufl. <i>von Höfer</i>	49,	341
Ether, an attempt towards a chemical conception of the. <i>Mendeléeff</i> and <i>Kamensky</i>	33,	517
Etherification and on the constitution of salts, papers on. <i>Williamson</i>	31,	192
Explosives. <i>Brunswick</i> , <i>Munroe</i> and <i>Kibler</i>	49,	431
Farbenempfindlichen Platten, das Arbeiten mit. <i>König</i>	42,	558
Farbstoffe auf spektrochemischen Wege, Unter- suchung und Nachweis organischer, 2te Aufl. <i>Formánek</i> and <i>Grandmougin</i>		
..... 1ter Teil, 42, 180; 2ter Teil,	50,	474
Faserstoffe, die Mikroskopie der technisch ver- wendeten, 2te Aufl. <i>v. Höhnel</i>	35,	474
Fats, the. <i>Leathes</i>	46,	415
Fats and oils industries, the laboratory companion to. <i>Lewkowitsch</i>	27,	240
Ferments and fermentation, the soluble. <i>Green</i> ...	23,	86
Fertility and fertilizer hints. <i>Halligan</i>	47,	531
Feste Lösungen, über. <i>Bruni</i> and <i>Basch</i>	27,	424
Flour et ses composés, le. <i>Moissan</i>	26,	92
Follies of science at the court of Rudolph II, the. <i>Bolton</i>	34,	108

Reviews:

Food adulterants, detection of common. <i>Bruce</i> ...	40,	313
Food analysis, select methods in. <i>Leffmann</i> and <i>Beam</i>	26, 470; 2nd ed., 34,	593
Food and Dairy Departments, Annual Convention of Association of State and National.....	10th, 39, 312; 11th, 40,	577
Food inspection and analysis. <i>Leach</i>	32, 614; 2nd ed., 44,	201
Food preservatives. <i>Eccles</i>	34,	472
Foods, fatty. <i>Bolton</i> and <i>Revis</i>	49,	530
Foods, pure. <i>Olsen</i>	47,	457
Foods and drugs, a microscopical examination of, 2nd ed. <i>Greenish</i>	47,	269
Formaldehyd, der. <i>Vanino</i> and <i>Seitter</i>	26,	292
Fortschritte der Chemie, Jahresbericht über die. <i>Liebig</i> and <i>Kopp</i>	1892, 4tes Heft, 21,	544
<i>Bodländer</i>	1893, 1tes Heft, 24,	104
<i>Bodländer, Kerp</i> and <i>Minunni</i>	1894, 4tes u. 5tes Hefte, 29, 88; 9tes Heft, 30,	443
Freezing-point, boiling-point, and conductivity methods, the. <i>Jones</i>	21, 95; 2nd ed., 49,	340
Galvanische Leitfähigkeit der Elektrolyte, Untersuchungen über die. <i>Arrhenius</i> , <i>Hamburger</i> and <i>Sackur</i>	39,	800
Galvanoplastiche, elettrochimiche e fotomeccaniche, enciclopedia pratica per le industrie. <i>Conter</i> ...	43,	566
Galvanoplastik, die. <i>Pfankauser</i>	33,	98
Galvanostegie, 1ter Teil. <i>Schlötter</i>	47,	356
Gas-analysis, handbook of technical, 2nd English ed. <i>Winkler</i> and <i>Lunge</i>	30,	540
Gas analysis, methods of. <i>Hempel</i> and <i>Dennis</i> ...	28,	494
Gas and fuel analysis, technical. <i>White</i>	50,	493
Gases, the experimental study of. <i>Travers</i>	27,	420
Gases, the free expansion of. <i>Ames</i>	21,	539
Gas lighting. <i>Hunt</i>	25,	80
Gas meters, practical testing of. <i>Stone</i>	43,	186
Gasometrische Methoden und Apparate, neue. <i>Bleier</i>	21,	458
Gas reactions, thermodynamics of technical. <i>Haber</i> and <i>Lamb</i>	41,	557
Gas reaktionen, physikalische Chemie der homogenen und heterogenen. <i>Jellinek</i>	50,	191
Gasreaktionen, Thermodynamik technischer. <i>Haber</i>	34,	591
General chemistry, a laboratory outline of. <i>Smith</i> .	22,	243
<i>Smith</i> and <i>Hale</i>	3rd ed., 39,	310

Reviews:

General chemistry, descriptive, 2nd ed. <i>Tillman</i> ...	23,	274
General chemistry, elements of, 4th ed. <i>Long</i>	36,	619
General chemistry, experiments for students in.		
<i>Smith and Keller</i>.....4th ed, 26, 94; 5th ed.,	33,	431
General chemistry, introduction to. <i>Stoddard</i>	46,	213
General chemistry, laboratory exercises in. <i>Blanchard</i>	44,	390
General chemistry, laboratory experiments in.		
<i>North</i>	50,	471
General chemistry, laboratory instructions in.		
<i>Congdon</i>	26,	207
General chemistry, laboratory manual of, 4th ed.		
<i>Evans and Snell</i>	36,	526
General chemistry for colleges. <i>Smith</i>	42,	98
Générale, traité de chimie. <i>Nernst and Corvisy</i>		
..... 1re partie, 46, 313; 2me partie,	47,	529
Geochemistry, the data of. <i>Clarke</i>	40,	491
Gerichtlichen Chemie, Lehrbuch der, Band II.		
<i>Baumert, Dennstedt and Voigtländer</i>	36,	221
German, chemical. <i>Phillips</i>	50,	476
Gesättigte Salzlösungen vom Standpunkte der Phasenlehre. <i>Jänecke</i>	42,	374
Gesammelte Werke. <i>von Baeyer</i>	36,	103
Gifte, die tierischen. <i>Faust</i>	36,	110
Glass manufacture. <i>Rosenhain</i>	43,	93
Gleichgewicht auf Grund mechanischer Vorstellungen, das chemische. <i>v. Jüptner</i>	46,	114
Gleichgewichte vom Standpunkte der Phasenlehre, die heterogenen. <i>Roozeboom</i>		
..... 1tes Heft, 27, 78; 2tes Heft, 1ter Teil,	33,	434
Glues and gelatine. <i>Fernbach</i>	38, 382; 39,	312
Glykole, Abhandlung über die. <i>Wurtz</i>	44,	477
Glykoside, die. <i>van Rijn</i>	25,	170
Graphit, künstlicher. <i>Fitz-Gerald and Huth</i>	33,	520
Harze und die Harzebehälter, die, 2te Aufl.		
<i>Tschirch</i>	37,	662
Heat energy and fuels. <i>v. Jüptner and Nagel</i>	43,	387
High - temperature measurements. <i>LeChatelier, Boudouard and Burgess</i>	27, 235; 2nd ed.,	33,
Hindu chemistry, a history of, Vol. I. <i>Ray</i>	32,	88
Histoire de la chimie, contribution à l'. <i>Colson</i> ...	47,	358
Histoire du développement de la chimie. <i>Ladenburg and Corvisy</i>	42,	559
Historical development of chemistry, the. <i>Ostwald</i> .	37,	417
History of chemical theories and laws, a. <i>Muir</i> ...	37,	544

Reviews:

History of chemistry, a. <i>Armitage</i>	37,	659
<i>von Meyer and McGowan</i>.....3rd English ed.,	38,	118
<i>Bauer and Stanford</i>	39,	798
History of chemistry, a concise. <i>Hilditch</i>	48,	552
History of the development of chemistry, lectures on the. <i>Ladenburg and Dobbin</i>	26,	384
History of the progress of scientific chemistry in our own times, a short. <i>Tilden</i>	23,	271
Hoff, Jacobus Henricus van't. <i>Cohen</i>	49,	424
Hydrazine in der analytischen Chemie, die An- wendung der. <i>Schmidt</i>	39,	432
Hydrocarbures, alcools et éthers de la série grasse. <i>Carré</i>	46,	649
Hydrosulfit, das. <i>Jellinek</i> . Teil I, 48, 98; Teil II,	49,	262
Hypochlorite und electrische Bleiche. <i>Engelhardt</i> ,	31,	447
<i>Abel</i>	35,	191
<i>Ebert and Nussbaum</i>	47,	458
Igneous rocks, quantitative classification of. <i>Cross</i> , <i>Iddings, Pirsson and Washington</i>	30,	442
Immune sera. <i>Wassermann and Bolduan</i>	32,	294
Immuno-chemistry. <i>Arrhenius</i>	39,	664
Indicators and test-papers. <i>Cohn</i> , 22, 416; 2nd ed.,	28,	410
Indigo, the history of the development of the manu- facture of. <i>Brunck</i>	26,	387
Industrial chemistry. <i>Rogers and Aubert</i>	50,	188
Industrial chemistry, outlines of. <i>Thorpe</i> , 21, 181; new ed., 23, 268; 2nd ed., 35, 96; reprint of 2nd ed.	38,	655
Industrial organic chemistry, a handbook of, 3rd ed. <i>Sadtler</i>	25,	169
Industrie, die chemische. <i>Müller and Bennigson</i> .	42,	475
Industrie chimique, la grande. <i>Pécheux</i> ...36, 220; 37,	37,	288
Inorganica generale e applicata all'industria, trat- tato di chimica, 3a ed. <i>Molinari</i>	46,	212
Inorganic chemical preparations. <i>Lengfeld</i>	22,	495
Inorganic chemistry. <i>Howe</i>	38,	251
<i>Cady</i>	50,	54
Inorganic chemistry, a course in. <i>Newell</i>	42,	475
Inorganic chemistry, a laboratory manual of. <i>Bingham and White</i>	46,	214
Inorganic chemistry, a text-book of. <i>Holleman and</i> <i>Cooper</i> , 28, 241; 3rd English ed., 41, 559; 4th ed.,	48,	102
<i>Senter</i>	49,	263
Inorganic chemistry, elements of. <i>Jones</i>	31,	193

Reviews:

Inorganic chemistry, guide to preparation work in. <i>Blochmann and Howe</i>	30,	83	
Inorganic chemistry, introduction to general. <i>Smith</i>	36,	217	
Inorganic chemistry, laboratory experiments to accompany outlines of. <i>Gooch and Walker</i>	35,	473	
Inorganic chemistry, laboratory methods of. <i>Biltz, Biltz, Hall and Blanchard</i>	43,	185	
Inorganic chemistry, new ideas on. <i>Werner and Hedley</i>	46,	530	
Inorganic chemistry, outlines of. <i>Gooch and Walker</i>	34,	588	
Inorganic chemistry, principles of. <i>Jones</i>	29,	616	
Inorganic chemistry, synthetic. <i>Blanchard</i>	41,	449	
Inorganic chemistry, the principles of. <i>Ostwald and Findlay</i>	28,	243	
Inorganic chemistry, treatise on general and industrial. <i>Molinari and Feilmann</i>	49,	521	
Inorganic chemistry for beginners. I, 5th ed. <i>Hart</i>	46,	215	
Inorganic chemistry syllabus, 3rd ed. <i>Carel</i>	30,	166	
Ion. <i>Soddy and Waller</i>	42,	181	
Iron, the chemical analysis of. <i>Blair</i>			
.....4th ed.,	25, 437; 7th ed.,	43,	388
Iron ores of Missouri, the. <i>Crane</i>	49,	344	
Iron and steel works' chemist, practical methods for the. <i>Heess</i>	40,	494	
Kaliindustrie, Laboratoriumsbuch für die. <i>Tietjens and Roemer</i>	47,	87	
Kamphers und seiner wichtigsten Derivate, die Konstitution des. <i>Aschan</i>	31,	300	
Kapillarchemie. <i>Freundlich</i>	46,	533	
Katalyse, über, 2te Aufl. <i>Ostwald</i>	46,	413	
Kathodenstrahlen, die. <i>Schmidt</i> , 32, 293; 2te Aufl.,	38,	657	
Kinetic theory of gases, the. <i>Meyer and Baynes</i> ..	23,	272	
Kolloidchemie. <i>Zsigmondy</i>	48,	470	
Kraftgas. <i>Fischer</i>	45,	615	
Kristallographie, die neuere Entwicklung der. <i>Baumhauer</i>	35,	97	
Krystallographie, Einleitung in die chemische. <i>Groth</i>	34,	102	
Krystallographie vom Standpunkt der Strukturtheorie, physikalische. <i>Sommerfeldt</i>	38,	508	
Kupfers, die elektrolytische Raffination des. <i>Ulke and Engelhardt</i>	33,	98	

Reviews:

Laboratories, the design and equipment of small chemical. <i>Meade</i>	41,	450
Laboratory, elementary manual for the chemical. <i>Riggs</i>	33,	331
Laboratory guide, Church's, 9th ed. <i>Kinch</i>	49,	337
Laboratory manual. <i>Hillyer</i>	22,	331
Lachgas, das. <i>Cohen</i>	40,	316
Lack- und Firnisfabrikation, die. <i>Botler</i>	43,	93
Lagerung der Atome im Raume, die. 3te Aufl. <i>van't Hoff</i>	42,	95
Lead refining by electrolysis. <i>Betts</i>	40,	493
Lecture experiments, chemical. <i>Benedict</i>	26,	207
Leitvermögen der Elektrolyte, das. <i>Kohlrausch</i> and <i>Holborn</i>	21,	543
Leuchtgaszerzeugung seit 1890, die Entwicklung der. <i>Bertelsmann</i>	40,	491
Lexikon der Kohlenstoff-Verbindungen, 2te Aufl. <i>Richter</i>	24,	104
Liquefaction of gases, the rise and development of the. <i>Hardin</i>	22,	413
Liquid air, oxygen, nitrogen. <i>Claude</i> and <i>Cottrell</i>	50,	482
Liquids, the conductivity of. <i>Tower</i>	35,	548
Literatur-Register der organischen Chemie, 1910-1911. <i>Stelzner</i>	50,	254
Living matter, the dynamics of. <i>Loeb</i>	36,	416
Lösungstheorien in ihrer geschichtlichen Aufeinanderfolge, die. <i>Walden</i>	45,	538
Logarithmic reduction tables. <i>Moore</i>	50,	340
Lubricating oils, fats and greases, 3rd ed. <i>Hurst</i> and <i>Leask</i>	47,	355
Manures, the manufacture of chemical. <i>Fritsch</i> and <i>Grant</i>	47,	357
Massanalyse, Anleitung für das Praktikum der, 3te Aufl. <i>Weinland</i>	47,	183
Massanalyse, die Methoden der. <i>Beckurts</i> and <i>Lüning</i>	1te Abt., 45, 89; 2te Abt., 48,	196
Massanalyse, kurze Anleitung zur. <i>Medicus</i>.....	.....7te u. 8te Aufl., 29, 516; 9te u. 10te Aufl., 47,	86
Massanalyse, Theorie und Praxis der. <i>Classen</i> and <i>Cloeren</i>	47,	455
Masse bei chemischen Umsetzungen, über die Erhaltung der. <i>Landolt</i>	44,	207
Mathematics for chemical students, higher. <i>Partington</i>	48,	552

Reviews:

Mathematics for students of chemistry and physics, higher. <i>Mellor</i>	29, 287; 2nd ed., 36,	219
Matter, reflections suggested by the new theory of. <i>Balfour</i>	34,	586
Meat and food inspection. <i>Robertson and Herzog</i> ..	42,	374
Mécanique chimique fondée sur la thermodynamique, traité élémentaire de, Vol. IV. <i>Duhem</i> .	23,	531
Mechanical appliances of the chemical and metallurgical industries, the, 2nd ed. <i>Nagel</i>	44,	561
Medical and pharmaceutical chemistry, text-book of, 6th ed. <i>Bartley</i>	35,	476
Medical student's manual of chemistry, the, 5th ed. <i>Witthaus</i>	30,	350
Memento du chimiste. <i>Haller and Girard</i>	40,	129
Menge, Mass und Zeit, die chemischen Grundlehren nach. <i>van't Hoff</i>	48,	265
Merceologia, dizionario di, Vol. I, 3a ed. <i>Villa-vecchia</i>	46,	216
Merck's annual report, E...XXII, 44, 390; XXIV,	48,	196
Merck's 1907 index.....	39,	559
Metabolism experiments in which the balance of income and outgo was determined, a digest of. <i>Atwater and Langworthy</i>	21,	458
Metal, wood, glass, etc., decoration of. <i>Standage</i> ..	41,	444
Metalle, physikalische Chemie der. <i>Schenck</i>	43,	389
Metallografia. <i>Savoia</i>	43,	389
Metallographie, 1ter Band, 1tes Heft. <i>Guertler</i> ...	43,	389
Métallographie, traité de. <i>Robin</i>	49,	256
Metallography, the elements of. <i>Ruer and Mathewson</i>	44,	204
Metallurgical analysis, 3rd ed. <i>Lord and Demorest</i> .	50,	481
Metallurgical analysis, notes on, 2nd ed. <i>Lord</i> ...	30,	244
Metallurgical chemistry, introduction to, 2nd ed. <i>Stansbie</i>	38,	748
Metallurgy, handbook of. <i>Schnabel and Louis</i> ...		
..... Vol. I, 35, 473; Vol. II,	38,	379
Métaux, introduction à l'étude des. <i>Ditte</i>	28,	243
Microscopy, elements of applied. <i>Winslow</i>	34,	350
Military explosives, notes on. <i>Weaver</i>	37,	423
Milk, butter and cheese, a laboratory handbook for the analysis of. <i>Evans</i>	36,	620
Minérale, traité de chimie. <i>Erdmann and Corvisy</i>		
..... Tome 1er, 50, 132; tome 2nd,	50,	488
Mineralogy, descriptive. <i>Kraus</i>	47,	271

Reviews:

Mineralogy, crystallography and blowpipe analysis, elements of. <i>Moses and Parsons</i>	
..New ed., 25, 250; 3rd ed., 34, 172; 4th ed., 43,	565
Minerals and rocks, a text-book of important. <i>Tillman</i>	25, 249
Mischen, Rühren, Kneten. <i>Fischer</i>	47, 352
Mohnbau und Opiumgewinnung, über. <i>Thoms</i>	38, 379
Molecular weights, practical methods for determining. <i>Biltz, Jones and King</i>	22, 496
Moleküle, die Existenz der. <i>Svedberg</i>	49, 425
Nahrung, die menschliche. <i>Kreutz</i>	50, 57
Natronzellstoff, über. <i>Christiansen</i>	50, 483
Naturkonstanten in alphabetischer Anordnung, die. <i>Erdmann and Köthner</i>	34, 587
New era in chemistry, a. <i>Jones</i>	50, 477
New knowledge, the. <i>Duncan</i>	34, 355
Nitrocellulose industry. <i>Worden</i>	45, 616
Nitroverbindungen organischer Verbindungen, die elektrochemische Reduktion der. <i>Möller</i>	33, 99
Normalelements und ihre Anwendung in der elektrischen Messtechnik, die. <i>Jaeger</i>	27, 236
Nouveautés chimiques, les. <i>Poulenc</i>	
.....1904, 33, 432; 1905, 35, 96; 1906, 36, 523; 1907, 39, 310; 1908, 41, 444; 1909, 43, 564; 1910, 47, 88; 1911, 48, 102; 1912, 49, 79; 1913, 50,	132
Novitäten, chemische, Jahrgang I, N. 1.....	33, 214
Oele und Fette, Laboratoriumsbuch für die Industrie der. <i>Marcusson</i>	47, 183
Oil analysis, a short handbook of. <i>Gill</i>	
.....3rd ed., 31, 681; 5th ed., 43, 283, 6th ed., 46,	216
Oil chemist's handbook, the. <i>Hopkins</i>	25, 82
Oils, tallow, and grease, for lubrication, etc., the practical compounding of. <i>Anonymous</i>	21, 276
Opera omnia, Marcell Nencki. <i>Nencki</i>	34, 352
Optical activity and chemical composition. <i>Landolt and McCrae</i>	23, 271
Organica, trattato di chimica, 2a ed. <i>Molinari</i>	49, 73
Organic chemistry. <i>Haskins and MacLeod</i>	40, 128
<i>Cohen</i>	40, 213
<i>von Richter, Anschütz and Smith</i>	
.....3rd American ed., Vol. I, 22,	245
<i>von Richter, Anschütz, Schroetter and Smith</i>	
.....Vol. II, 23,	362
Organic chemistry, a course of practical. <i>Price and Twiss</i>	40, 490

Reviews:

Organic chemistry, an introduction to the study of the compounds of carbon or, 4th ed. <i>Remsen</i> ..	30,	246
Organic chemistry, applications of some general reactions to investigations in. <i>Lassar-Cohn</i> and <i>Tingle</i>	33,	521
Organic chemistry, a second year course of. <i>Thole</i> ..	49,	338
Organic chemistry, a systematic course of practical. <i>Radcliffe</i> and <i>Sinnatt</i>	34,	592
Organic chemistry, a text-book of. <i>Noyes</i>	31, 85; 2nd ed.,	412
<i>Holleman, Walker</i> and <i>Mott</i>	31, 190; 2nd English ed.,	45, 537
Organic chemistry, experiments in. <i>Moore</i>	48,	467
Organic chemistry, modern research in. <i>Pope</i>	49,	526
Organic chemistry, outlines of. <i>Moore</i>	48,	382
Organic chemistry, recent advances in, 2nd ed. <i>Stewart</i>	50,	480
Organic chemistry, the practical methods of, 2nd American ed. <i>Gattermann</i> and <i>Schober</i>	27,	158
Organic chemistry, the principles of. <i>Norris</i>	49,	524
Organic chemistry, the spirit of. <i>Lachman</i>	22,	247
Organic chemistry, treatise on general and industrial. <i>Molinari</i> and <i>Pope</i>	50,	256
Organic chemistry for beginners, a laboratory manual of. <i>Holleman</i> and <i>Walker</i>	33,	98
Organic chemistry for the laboratory, 2nd ed. <i>Noyes</i>	46,	650
Organic compounds, a method for the identification of pure, Vol. I. <i>Mulliken</i>	32,	404
Organic compounds, the identification of. <i>Neave</i> and <i>Heilbron</i>	47,	359
Organic compounds, the preparation of. <i>Barnett</i> ..	49,	525
Organic syntheses, general principles of. <i>Alexeyeff</i> and <i>Matthews</i>	37,	117
Organique, cours de chimie. <i>Swarts</i>	37, 206; 2me éd.,	50, 480
Organique, notions fondamentales de chimie, 4me éd. <i>Moureu</i>	50,	490
Organische Chemie, Anleitung zum Experimentieren in der Vorlesung über. <i>Rupe</i>	43,	391
Organischen Chemie, Jahrbuch der, VI. <i>Schmidt</i> ..	50,	52
Organischen Chemie, kurzes Lehrbuch der. <i>Bernthsen</i> and <i>Mohr</i> . 9te Aufl.,	35, 547; 10te Aufl.,	42, 371
<i>Bernthsen</i> and <i>Darapsky</i>	11te Aufl.,	47, 456
<i>Noyes</i> and <i>Ostwald</i>	39,	799

Reviews:

Organischen Chemie, kurzes Repetitorium der. <i>Dammann</i>	36,	618
Organischen Chemie, neuere theoretische Anschauungen auf dem Gebiete der. <i>Henrich</i>	42,	372
Organischen Chemie, Theorien der. <i>Henrich</i>	50,	52
Organisch präparative Praktikum, Anleitung für das. <i>Henle</i>	42,	373
Ostwald, Wilhelm. <i>Walden</i>	32,	90
Oxidases, the. <i>Kastle</i>	44,	478
Oxidations and reductions in the animal body. <i>Dakin</i>	49,	166
Ozeanischen Salzablagerungen, Untersuchungen über die Bildungsverhältnisse der. <i>van't Hoff, Precht and Cohen</i>	49,	339
Ozeanischen Salzablagerungen, zur Bildung der. <i>van't Hoff</i>	34,	260
Paint and varnish, the industrial and artistic technology of. <i>Sabin</i>	33,	331
Painting, materials for permanent. <i>Toch</i>	48,	262
Paints, color pigments and varnishes, analysis of mixed. <i>Holley and Ladd</i>	40,	215
Parabolischer Spiegel, Verfahren zur Herstellung. <i>Cowper-Coles and Abel</i>	33,	520
Parfums artificiels, les. <i>Charabot</i>	23,	275
Patent Office, subject list of works on chemistry (including alchemy, electrochemistry and radioactivity) in the library of the (London).....	47,	184
Per-acids and their salts. <i>Price</i>	49,	73
Petrogenesis. <i>Doelter</i>	36,	522
Pflanzenchemie, Grundlagen und Ergebnisse der. <i>Euler</i> . 1ter Teil, 41, 445; 2ter, 3ter Teile, 45,		413
Pflanzenuntersuchung, Grundzüge der chemischen. <i>Rosenthaler</i>	33,	519
Pharmacology, the chemical basis of. <i>Francis and Fortescue-Brickdale</i>	41,	78
Pharmazeutischen Chemie, ausführliches Lehrbuch der, 5te Auflage. <i>Schmidt</i>		
1ter Band, 1te Abt., 37, 419; 2ter Band, 1te Abt., 44,		564
Pharmazeutischen Chemie, Grundzüge der, 1ter Band. <i>Beckurts</i>	49,	337
Phase rule and its applications, the. <i>Findlay</i>	32,	183
Photochemie, 5te Aufl. <i>Vogel and König</i>	40,	576
Photochemische Versuchstechnik. <i>Plotnikow</i>	49,	164
Photographic exposure record and diary, Wellcome's.....	1907, 38, 510; 1914, 50,	476

Reviews:

- Photography for students of physics and chemistry.
Derr..... 38, 121
- Physical chemistry, an experimental course of.
Spencer.....Part I, 46, 649; Part II, 48, 195
- Physical chemistry, a text-book of. *Lehfeldt*..... 23, 270
- Physical chemistry, introduction to. *Walker*..... 23, 269
- Jones*..... 44, 388
- Physical chemistry, laboratory exercises in. *Getman*.....32, 296; 2nd ed., 40, 490
- Pring*..... 48, 265
- Physical chemistry, outlines of. *Reychler and McCrae* 22, 415
- Senter*..... 43, 183
- Physical chemistry, practical. *Findlay*..... 38, 252
- Physical chemistry, problems in. *Prideaux*..... 49, 78
- Physical chemistry, the elements of. *Morgan*..... 21, 459; 2nd ed., 28, 242; 3rd ed., 34, 593; 4th ed., 42, 96
- Jones*.....27, 423; 3rd ed., 39, 435
- Physical chemistry for beginners. *van Deventer and Boltwood*..... 21, 277
- Physical chemistry for electrical engineers. *Morgan*.....36, 324; 2nd ed., 44, 109
- Physical chemistry for physicians and biologists. *Cohen and Fischer*..... 30, 165
- Physical chemistry in the service of medicine. *Pauli and Fischer*..... 38, 125
- Physical chemistry in the service of the sciences. *van't Hoff and Smith*..... 31, 680
- Physical and inorganic chemistry, recent advances in. *Stewart*..... 44, 206
- Physical chemistry theory and practice, a text-book of. *Ewell*..... 44, 109
- Physical science, an introduction to. *Getman*..... 44, 388
- Physical science, the recent development of. *Whetham*..... 34, 173
- Physicheskoi Chemie, Osnovi. *Jones, Biron, Zhukoff and Sopochnikoff*..... 46, 414
- Physico-chemical calculations. *Knox*..... 48, 102
- Physico-chemical review, a. *Rudolphi*..... 31, 298
- Physics and chemistry. *Higgins*..... 36, 221
- Physikalisch-chemische Rechenaufgaben. *Abegg and Sackur*..... 44, 110
- Physikalische Chemie. *van Deventer and Cohen*... ..2te Aufl., 27, 424; 3te Aufl., 38, 250
- Physikalische Chemie, Vorträge für Aerzte über, 2te Aufl. *Cohen*..... 39, 665

Reviews:

Physikalische-chemische Tabellen, Landolt-Börnstein, 3te Aufl. <i>Bornstein and Meyerhoffer</i>	34,	591
Physiological chemistry, a text-book of. <i>Long</i>		
.....	35, 192; 2nd ed., 43,	470
Physiological chemistry, directions for laboratory work in, 2nd ed. <i>Jackson</i>	32,	92
Physiological chemistry, exercises in practical. <i>Cole</i>	34, 171; 42,	179
Physiological chemistry, outlines of. <i>Beebe and Buxton</i>	33,	606
Physiological chemistry, text-book of. <i>Abderhalden, Hall and Defren</i>	41,	444
Physiological and clinical chemistry, manual of, 2nd ed. <i>Bartley</i>	33,	432
Physiological and pathological chemistry, a laboratory manual of. <i>Salkowski and Orndorff</i>	32,	184
Physiological and pathological chemistry, text-book of, 2nd English ed. <i>Bunge, Starling and Starling</i>	2 8,	493
Physiology and histology, practical exercises in chemical. <i>Lacey and Pannett</i>	34,	171
Physique, journal de chimie. <i>Guye</i>	31,	298
Physique, leçons de chimie. <i>van't Hoff and Corvisy</i>	2me partie, 23, 531; 3me partie, 24,	534
Phytochemischer Uebungspräparate, Anleitung zur Darstellung. <i>Wester</i>	50,	490
Pigments and their vehicles, modern. <i>Maire</i>	40,	313
Plant and organic chemistry and literary papers, studies in. <i>Michael</i>	38,	748
Plant products, an introduction to the chemistry of. <i>Haas and Hill</i>	50,	484
Plomb, recherches sur la préparation électrolytique des composés du. <i>Duvivier</i>	43,	472
Poisons and strong drugs, the detection of. <i>Autenrieth and Warren</i>	34,	473
Polarisation, die elektromotorischen Kräfte der. <i>LeBlanc</i>	44,	482
Polarisationsmikroskops, Anleitung zum Gebrauch des. <i>Weinschenk</i>	36,	526
Polariscope in the chemical laboratory, the. <i>Rolfe</i>	35,	375
Polytechnic Engineer, the. <i>Brooklyn Polytechnic Institute Students</i>	X, 47, 88; XIII, 50,	340
Portland cement. <i>Meade</i>	37, 203; 2nd ed., 47,	526
Portland cement mortars and concretes, tests of the absorptive and permeable properties of. <i>Wig and Bates</i>	48,	263

Reviews:

Presshufenfabrikation, Handbuch der. <i>Kiby</i>	49,	75
Prismatic and diffraction spectra. <i>Ames</i>	21,	539
Producer gas-fired furnaces. <i>Nagel</i>	44,	481
Progrès de la chimie en 1912, les. <i>London Chemical Society</i>	50,	488
Progress of chemistry, annual reports of the. <i>London Chemical Society</i>		
.....1904, 35, 193; 1905, 36, 418; 1906, 39,		661
Properties of over fifteen hundred common inorganic substances, tables of. <i>Seegerblom</i>	42,	476
Proteids, chemistry of the. <i>Mann</i>	36,	415
Protein metabolism, the physiology of. <i>Cathcart</i> ..	48,	553
Proteins, the chemical constitution of the. <i>Plimmer</i>	43, 91; 2nd ed., Part I, 48,	553
Proteins, the general characters of the. <i>Schryver</i> ..	43,	183
Proteins, the vegetable. <i>Osborne</i>	45,	324
Qualitative, notions fondamentales d'analyse. <i>Thomas and Gautier</i>	48,	264
Qualitative Analyse. <i>Böttger</i> ..	42, 97; 3te Aufl., 50,	472
Qualitative Analyse unorganischer Substanzen. <i>Biltz</i>	23,	275
Qualitative analysis. <i>Dennis and Whittlesey</i>	29,	395
<i>Morgan</i>	37,	662
Qualitative analysis, a brief laboratory guide for. <i>Hill</i>	47,	532
Qualitative analysis, a laboratory guide to the study of. <i>Bailey and Cady</i> ..	4th ed., 27, 157; 5th ed., 35,	547
Qualitative analysis, a manual of, revised ed. <i>McGregory</i>	44,	200
Qualitative analysis, a system of. <i>Noyes and Bray</i> ..	38,	119
Qualitative analysis, a treatise on, 8th ed. <i>Clowes</i> ..	41,	161
Qualitative analysis, laboratory manual of. <i>Seegerblom</i>	41,	161
Qualitative analysis, manual of. <i>Hoyt</i>	50,	55
Qualitative analysis, the elements of. <i>Noyes</i>	5th ed., 27,	80
<i>Noyes and Smith</i>	6th ed., 47,	453
Qualitative analysis, the principles of. <i>Böttger and Smeaton</i>	37,	201
Qualitative analysis for secondary schools. <i>Irish</i> ..	22,	168
Qualitative analysis with the blowpipe, a laboratory guide to. <i>Martin</i>	31,	194
Qualitative and quantitative analysis with the blowpipe, Plattner's manual of. <i>Cornwall and Caswell</i> ..	29,	516
Qualitative chemical analysis. <i>Perkin</i>	26,	94

Reviews:

<i>Prescott and Johnson</i>	5th ed.,	26,	95
<i>Leavenworth</i>		38,	122
<i>Hinds</i>		45,	414
<i>Scott</i>	46, 314; 2nd ed.,	50,	473
Qualitative chemical analysis, a brief course in.			
<i>Garvin</i>		29,	514
Qualitative chemical analysis, a course of. <i>Tower</i> .			
.....	45, 414; 2nd ed.,	46,	215
Qualitative chemical analysis, a course in, 4th ed.			
<i>Venable and Wheeler</i>		30,	84
Qualitative chemical analysis, a manual of. <i>Mc-</i>			
<i>Gregory</i>		31,	586
Qualitative chemical analysis, an elementary treat-			
ise on. <i>Sellers</i>	26, 208; 2nd ed.,	44,	112
Qualitative chemical analysis, an introduction to the			
science and practice of. <i>Jones</i>		21,	100
Qualitative chemical analysis, a system of in-			
struction in, 3rd ed. <i>Elliott and Ferguson</i>		23,	451
Qualitative chemical analysis, compendious man-			
ual of, 19th ed. <i>Eliot, Storer, Nichols and Lind-</i>			
<i>say</i>		23,	273
Qualitative chemical analysis, outlines of. <i>Gooch</i>			
and <i>Browning</i>		37,	548
Qualitative chemical analysis, tables for, 2nd ed.			
<i>Liversidge</i>		33,	436
Qualitative chemical analysis, the elements of.			
<i>Stieglitz</i>		47,	453
Qualitative chemistry, exercises in. <i>White</i>		29,	514
Qualitative chemistry, first book of, 11th ed. <i>Pres-</i>			
<i>cott and Sullivan</i>		28,	328
Qualitativem Analyse, kurze Anleitung zur. <i>Med-</i>			
<i>icus</i> ... 8te u. 9te Aufl.,	21, 276; 11te Aufl.,	27,	235
Qualitativen Analysen, Ausführung. <i>Biltz</i>		49,	432
Quantitative par électrolyse, traité d'analyse chim-			
ique. <i>Riban</i>		21,	541
Quantitative Analyse durch Elektrolyse, 5te Aufl.			
<i>Classen and Cloeren</i>		41,	447
Quantitative analysis, a college text-book of.			
<i>Moody</i>		50,	336
Quantitative analysis, an introduction to. <i>Auld</i> ..		48,	469
Quantitative analysis by electrolysis. <i>Classen,</i>			
<i>Cloeren and Hall</i>		50,	471
Quantitative analysis for mining engineers. <i>Miller</i> .		32,	405
Quantitative analysis in practice. <i>Waddell</i>		50,	472

Reviews:

Quantitative chemical analysis. <i>Clowes and Coleman</i> 5th ed., 25, 251; 6th ed., 31, 299; 8th ed., 44, 199; 9th ed., 47,	532
<i>Fresenius and Cohn</i> 32,	181
Quantitative chemical analysis, a laboratory outline for determinations in. <i>Gilman</i> 40,	413
Quantitative chemical analysis, a manual of. <i>Ladd</i> . 21,	98
Quantitative chemical analysis, an introductory course of, 5th ed. <i>Talbot</i> 41,	448
Quantitative chemical analysis, a text-book of. <i>Julian</i> 30,	538
Quantitative chemical analysis, exercises in ele- mentary. <i>Lincoln and Walker</i> 40,	128
Quantitative chemical analysis, introductory notes on, 2nd ed. <i>Foulk</i> 45,	612
Quantitative chemical analysis, a text-book of. <i>Olsen</i> 33,	329
Quantitative chemistry, exercises in. <i>Morse</i> 35,	376
Quantitative experiments in general chemistry. <i>Stoddard</i> 42,	373
Radicles in carbon compounds, determination of. <i>Meyer and Tingle</i> , 23, 451; 2nd ed., 30, 351; 3rd ed., 41,	162
Radioactive transformations. <i>Rutherford</i> 37,	661
Radio-activity. <i>Rutherford</i> 33,	208
Radioaktiven Substanzen, Untersuchungen über die. <i>Curie and Kaufmann</i> 31,	680
Radioaktive Umwandlungen. <i>Rutherford and Levin</i> 38,	749
Radioaktivität, die neueren Fortschritte auf dem Gebiete der. <i>Greinacher</i> 42,	291
Radiochemistry. <i>Cameron</i> 45,	87
Radio elements, the chemistry of the. <i>Soddy</i> 48,	101
Radiologie et de l'ionisation, premier congrès inter- national pour l'étude de la..... 37,	115
Radium, the interpretation of, 3rd ed. <i>Soddy</i> 49,	528
Radium and other radioactive substances. <i>Ham- mer</i> 31,	83
Radium and radioactive substances. <i>Baskerville</i> .. 35,	290
Radiumnormalmasse. <i>Rutherford and Finkelstein</i> . 46,	648
Radiums, die Entdeckung des. <i>Curie</i> 48,	551
Rarer elements, introduction to the. <i>Browning</i> 30, 542; 2nd ed., 43, 92; 3rd ed., 49,	337
Reagentien auf Reinheit, Prüfung der, 2te Aufl. <i>Merck</i> 48,	196
Reagents, chemical. <i>Merck and Schenk</i> 39,	312

Reviews:

Rechnen bei chemischen präparativen Arbeiten, Anleitung zum zweckmässigen. <i>Mohr</i>	43,	566
Refraktometrisches Hilfsbuch. <i>Roth and Eisenlohr</i>	47,	268
Refrigeration. <i>Anderson</i>	40,	577
Reichsanstalt, die Chemische. <i>Ostwald</i>	36,	523
Remedies, the newer, 3rd ed. <i>Coblentz</i>	22,	332
Review questions and problems in chemistry. <i>Unger</i>	50,	58
Rey, essais de Jean. <i>Petit</i>	38,	250
Riechstoffe, die. <i>Cohn</i>	32,	519
Rocks, manual of the chemical analysis of. <i>Washington</i>	33, 435; 2nd ed., 45,	90
Rocks, rock-weathering and soils. <i>Merrill</i>	34,	106
Röntgen rays. <i>Barker</i>	21,	539
Russes und der Schwarze, die Fabrikation des, 3te Aufl. <i>Köhler</i>	49,	342
Sanitary and applied chemistry or the chemistry of water, air and food, a text-book of. <i>Bailey</i>	37,	205
Saponification des corps gras, contribution à l'étude de la. <i>Nicloux</i>	37,	548
Schmelzpunkten, Tabelle der wichtigsten organ- ischen Verbindungen, geordnet nach. <i>Kempff</i> ..	50,	480
Schriftfälschungen, Blut, Sperma, u. s. w., der Nachweis von. <i>Dennstedt and Voigtländer</i>	37,	291
Schwefel, der kolloide. <i>Odén</i>	50,	495
Schwelteere, die. <i>Scheithauer</i>	46,	416
Science reader, modern. <i>Bird</i>	47,	457
Seen, die physikalischen Eigenschaften der. <i>Frei- herr</i>	34,	587
Sels, étude générale des. <i>Ditte</i>	35,	470
Seltenen Erden zu Reagentien, Verhalten der wich- tigsten. <i>v. Panayeff</i>	43,	283
Seltenen Erden und der Erdsäuren, die Analyse der. <i>Meyer and Hauser</i>	49,	264
Sewage, methods and devices for the bacterial treatment of. <i>Venable</i>	40,	576
Sicherheitseinrichtungen in chemischen Betrieben. <i>Hartmann</i>	47,	271
Smoke. <i>Cohen and Ruston</i>	50,	491
Smokeless powder, nitrocellulose, and theory of the cellulose molecule. <i>Bernadou</i>	27,	237
Soil conditions and plant growth. <i>Russell</i>	49,	253
Soils and fertilizers, the chemistry of. <i>Snyder</i>	22, 495; 2nd ed., 35,	291
Soils and manures. <i>Murray</i>	45,	90

Reviews:

Solubilities of inorganic and organic substances.		
<i>Seidell</i>	38,	750
Solution, the modern theory of. <i>Jones</i>	21,	539
Specific gravity and the displacement of some saline solutions, experimental researches on the.		
<i>Buchanan</i>	49,	528
Spectrochimie, introduction à l'étude de la.		
<i>Urbain</i>	47,	85
Spectroscopy. <i>Baly</i>	34, 592; new ed., 48,	549
Spectrum analysis, 2nd ed. <i>Landauer and Tingle</i> ..	40,	412
Sprengstoffe, die. <i>Biedermann</i>	44,	560
Statistics and dynamics, chemical. <i>Mellor</i>	34,	171
Statique chimique, la. <i>Aries</i>	33,	521
Steels, steel-making alloys and graphite, rapid methods for the chemical analysis of special.		
<i>Johnson</i>	43,	95
Steinkohlenteers und des Ammoniaks, die Industrie des, 5te Aufl. <i>Lunge and Köhler</i>	49,	260
Stereochemie, Materialien der. <i>Bischoff</i>	33,	327
Stereochemistry. <i>Stewart</i>	40,	574
Stereomeren, Gleichgewichte der. <i>Meyerhoffer</i> ...	39,	156
Stickstoff und seine wichtigsten Verbindungen, der. <i>Spiegel</i>	30,	352
Stöchiometrie, Einführung in die. <i>Biehringer</i> ...	24,	535
Stoichiometry. <i>Young</i>	40,	314
Substituenten in den Benzolkern, die direkte Einführung von. <i>Holleman</i>	46,	309
Sucrées à différentes températures, les densités des solutions. <i>Sidersky</i>	42,	559
Sucres et leurs principaux dérivés, les. <i>Maquenne</i> ..	23,	267
Sugar analysis, methods for. <i>Given</i>	48,	469
Sugar works, technical calculations for. <i>Mittelstaedt and Bourbakis</i>	44,	389
Sulfurieren, Alkalischmelze der Sulfosäuren, Esterifizieren. <i>Wichelhaus</i>	47,	353
Sulphuric acid and alkali, the manufacture of, Vol. III, 3rd ed. <i>Lunge</i>	47,	354
Synthetisch-organische Chemie der Neuzeit. <i>Schmidt</i>	41,	77
Teaching chemistry in schools, a method of. <i>Hughes and Stern</i>	37,	664
Teaching of chemistry and physics in secondary schools, the. <i>Smith and Hall</i>	30,	439
Tests and reagents, chemical and microscopical. <i>Cohn</i>	30,	441

Reviews:

Theoretical chemistry. <i>Nernst and Lehfeldt</i>	34,	169
Theoretical chemistry, outlines of. <i>Getman</i>	50,	469
Theoretical and physical chemistry. <i>Bigelow</i>	48,	548
Theoretische Chemie, 2te Aufl. <i>Nernst</i>	23,	179
Theorie, über eine neue chemische. <i>Couper and Anschütz</i>	47,	267
Theorien der Chemie. <i>Arrhenius and Finkelstein</i>	36,	523
Theories of chemistry. <i>Arrhenius and Price</i>	38,	657
Thermochemical constants, on the calculation of. <i>Redgrove</i>	42,	559
Thermochemistry. <i>Thomsen and Burke</i>	40,	315
Thermodynamics, an outline of the theory of. <i>Buckingham</i>	25,	171
Thermodynamics and chemistry. <i>Duhem and Burgess</i>	31,	301
Thermodynamics for engineering students, an introduction to. <i>Mills</i>	46,	212
Thermodynamik auf energetischer Grundlage, Einführung in die. <i>Meyer</i>	36,	219
Thermodynamique et chimie. <i>Duhem</i>	28,	242
Thermodynamische Potential, sechs Vorträge über das. <i>van Laar</i>	37,	117
Thermodynamische Theorien, über neue. <i>Planck</i> ..	48,	551
Thermoelemente und Thermosäulen. <i>Peters</i>	41,	80
Thermometer, evolution of the: 1592-1743. <i>Bolton</i>	25,	348
Toxicology, 3rd ed. <i>Riley</i>	37,	419
Toxikologische Chemie. <i>Mannheim</i>	44,	564
Toxines, cellular, 4th ed. <i>Vaughan and Novy</i>	29,	286
Toxins and anti-toxins and their anti-bodies, the. <i>Pozzi-Escot and Cohn</i>	38,	123
Unorganische Chemie, experimentelle Einführung in die. <i>Biltz</i>	23,	275
Unorganischen Experimentalchemie, Uebungsbei- spiele aus der. <i>Biltz and Biltz</i>	39, 559; 2te Aufl.,	50, 53
Uranium, the analytical chemistry of. <i>Breareley</i> ..	31,	589
Uric acid. <i>McCrudden</i>	36,	323
Urine and the clinical chemistry of the gastric contents, the, 7th ed. <i>Holland</i>	33,	433
Urine analysis, a text-book of. <i>Long</i>	26,	388
Varnishes of the violin makers of the XVI and XVII centuries, the. <i>Fry</i>	34,	170
Varnishes, oil crushing, refining and boiling, and kindred industries, the manufacture of. <i>Livache and McIntosh</i>	24,	384

Reviews:

Vegetation durch Rauch, die Beschädigung der. <i>Haselhoff and Lindau</i>	30,	85
Vital products, the chemical synthesis of, Vol. I. <i>Meldola</i>	34,	107
Volatile oils, the. <i>Gildemeister, Hoffmann and Kremers</i>	25, 168; 2nd ed., 1st vol., 50,	337
Volumetric analysis, a manual of. <i>Coblentz</i>	29,	178
<i>Coblentz and Vorisek</i> 2nd ed.,	43,	471
Volumetric analysis, a systematic handbook of. <i>Sutton</i>	9th ed., 33,	328
<i>Sutton, Sutton and Johnson</i> 10th ed.,	47,	87
Volumetric analysis, a text-book of. <i>Schimpf</i> 3rd ed., 21, 98; 4th ed., 31, 192; 5th ed.,	43,	184
Wärme, die Mechanik der. <i>Mayer and von Oettingen</i>	47,	267
Water. <i>Christie</i>	49,	529
Water, examination of. <i>Mason</i>	21,	543
Water, the electrolysis of. <i>Engelhardt and Richards</i>	31,	589
Water, the value of pure. <i>Whipple</i>	38,	508
Water and how to get it, clean. <i>Hazen</i>	39,	434
Water and water supplies. <i>Thresh</i> 23, 268; 2nd ed.,	50,	487
Water analysis, laboratory notes on industrial. <i>Richards</i>	42,	562
Water bacteriology, elements of. <i>Prescott and Winslow</i>	41, 80; 3rd ed., 50,	485
Water supply, 3rd ed. <i>Mason</i>	29,	177
Who's who in science, international, 1913. <i>Stephenson</i>	50,	133
Wismuts, die Bestimmungsmethoden des. <i>Moser</i> ..	44,	563
Zeresinfabrikation, die. <i>Lach</i>	47,	531
Zerkleinerungsvorrichtungen und Mahlanlagen. <i>Naske</i>	46,	308
Zinco, lo. <i>Musu-Boy</i>	43,	566
Zink und Cadmium. <i>Liebig</i>	50,	187
Zinks, die Untersuchungsmethoden des. <i>Nissenson</i>	39,	432
Zinks auf elektrolytischem Wege, die Darstellung des. <i>Günther</i>	33,	608
Zuckerarten, die Chemie der, 3te Aufl. von <i>Lippmann</i>	32,	515
Zuckerindustrie in Betracht kommenden Rohma- terialien, Produkte, Nebenprodukte und Hilfs- substanzen, Anleitung zur Untersuchung der für die, 6te Aufl. <i>Frühling</i>	30,	245
Zustandsgleichung, die. <i>van der Waals</i>	47,	528

Rosaniline hydrochloride and crystal violet in aqueous solution, on the decomposition of the leucosulphonic acids of. <i>Kastle</i>	42,	293
Rosocyanin. <i>Clarke and Jackson</i>	39,	696
Rubidium, potassium and caesium, the polyiodides of. <i>Foote and Chalkér</i>	39,	561
— barium silver thiocyanates, on. <i>Wells</i>	30,	184
— erbium and potassium compounds, experiments on the radioactivity of. <i>Strong</i>	42,	147
Rue anemone, abnormal biochemical products of the. <i>Beattie</i>	40,	415
SACCHARIN, the valuation of. <i>Reid</i>	21,	461
Salicylates, the synthesis of amines by the use of alkyl. <i>Tingle</i>	25,	144
— thymol and similar compounds, a new bromine method for the determination of. <i>Seidell</i>	47,	508
Sandstone from Augusta County, Virginia, examination of a. <i>Miller</i>	22,	216
Saponification and esterification, the theories of. Studies in catalysis. III. <i>Stieglitz</i>	39,	402
Saskatchewan, studies on some soils from. <i>Clark, Gortner and Vail</i>	39,	163
Scheibler's extractor for use with large quantities of a solid, a modification of. <i>Jackson and Clarke</i>	42,	287
Selective oxidation. <i>Jones and Strong</i>	45,	36
Selenates and tellurates, on the isomorphism of. <i>Norris and Kingman</i>	26,	318
Selenic acid, the action of acetyl chloride on. <i>Lamb</i>	30,	209
Selenium and tellurium, on the isomorphism of. <i>Norris and Mommers</i>	23,	486
— dioxide by sodium thiosulphate, the reduction of. <i>Norris and Fay</i>	23,	119
Semicarbazide derivatives of isopropionic acid, benzoic acid and benzenesulphonic acid, on some. Urazoles. IX. <i>Acree</i>	37,	361
Semicarbazino and uramido esters with sodium alcoholate, ring condensations of the esters of. <i>Bailey</i>	28,	386
Separatory apparatus, a (Note). <i>Jacobson and Dinsmore</i>	44,	84
Silicon, the action of ammonia and amines on chlorides of. <i>Lengfeld</i>	21,	531
Silver, a new volumetric method for the determination of. <i>Andrews</i>	24,	256
— on the experimental illustration of the law of definite proportions through combination of the halogens with finely divided. <i>Kastle</i>	45,	396

- the alkali earths and lead, on some double and triple salts of caesium nitrite with the nitrites of. *Jamieson*..... 38, 614
- and of barium in the determination of chlorides and sulphates, use of the chromates of. *Andrews*.. 32, 476
- caesium and cadmium, on the double and triple thiocyanates of. *Wells*..... 30, 144
- caesium and cobalt, on double and triple thiocyanates of. *Shinn and Wells*..... 29, 474
- and potassium and their solubility, on the thiocyanates of. *Foot*..... 30, 330
- barium caesium thiocyanate, $\text{Cs}_3\text{BaAg}_2(\text{SCN})_7$. *Hupfel and Wells*..... 28, 272
- — potassium thiocyanate. *Wells*..... 28, 283
- — silver strontium and silver calcium thiocyanates. *Wells and Merriam*..... 28, 269
- bromide. See argentic bromide.
- caesium thiocyanates, the. *Wells*..... 28, 263
- calcium caesium and the silver magnesium caesium thiocyanates, the. *Merriam*..... 28, 275
- chlorate and sodium chlorate, and their solutions, on the mixed crystals of. *Foot*..... 27, 345
- chloride precipitates," note on "the determination of opalescent. *Wells*..... 35, 508
- — the estimation of opalescent. *Wells*..... 35, 99
- ions, a new apparatus for determining the relative velocities of ions, with some results for. *Mather*..... 26, 473
- manganous caesium thiocyanate, $\text{Cs}_2\text{MnAg}_2(\text{SCN})_6 \cdot 2\text{H}_2\text{O}$. *Leavenworth and Wells*..... 28, 276
- nickel caesium and the cuprous nickel caesium thiocyanates, the. *Roberts and Wells*..... 28, 277
- nitrate in mixtures of the alcohols and water and on the conductivity of such mixtures, determination of the relative velocities of the ions of. *Jones and Bassett*..... 32, 409
- — in water, methyl alcohol, ethyl alcohol and acetone and in binary mixtures of these solvents, together with the conductivity of such solutions, the relative migration velocities of the ions of. *Jones and Rouiller*..... 36, 427
- — with iodoacetonitrile, on the reaction of. *Loy and Acree*..... 45, 224
- — and ethyl iodide in ethyl and methyl alcohol and mixtures of these solvents, velocity

coefficients of the reaction between. <i>Pearce and Weigle</i>	48,	243
— potassium thiocyanates, the. <i>Merriam</i>	28,	265
— rubidium barium thiocyanates, on. <i>Wells</i>	30,	184
— strontium caesium and cuprous strontium caesium thiocyanates. <i>Merriam</i>	28,	274
— zinc caesium thiocyanates, the. <i>Wells</i>	28,	278
— — and caesium zinc thiocyanates, the. <i>Wells</i>	28,	268
Smithsonite from Arkansas, analysis of. <i>Miller</i>	22,	218
Sodium on acetone, the action of. <i>Bacon and Freer</i>	38,	367
— on ketones, on sodium phenyl and the action of. <i>Acree</i>	29,	588
— potassium, caesium and lithium and their solubility, the acid oxalates of. <i>Foote and Andrew</i>	34,	153
— and sodium alcoholates towards various esters of acetic acid, on the behavior of. <i>Higley</i>	37,	293
— alcoholates alone and in the presence of salts of fatty acids, the action of carbon monoxide on. <i>Beatty</i>	30,	224
— benzhydrol, on the reactions of. <i>Bacon</i>	33,	68
— carbonate, sodium bicarbonate, carbon dioxide and water, equilibrium in the system composed of. <i>McCoy</i>	29,	437
— chlorate and silver chlorate, and their solutions, on the mixed crystals of. <i>Foote</i>	27,	345
— chloride and sodium sulphate, solubility of mixtures of. <i>Seidell</i>	27,	52
— dioxide on metals, the action of fused. II. <i>Dudley</i>	28,	59
— ethylate, the reversible addition of alcohols to nitriles catalyzed by. II. Catalysis. XVI. On the reactions of both the ions and the nonionized forms of electrolytes. <i>Marshall, Harrison and Acree</i>	49,	369
— peroxide, dry method for the generation of oxygen from (Note). <i>Turner</i>	37,	106
— — the analysis of organic substances with the help of. <i>Pringsheim</i>	31,	386
— — the generation of oxygen from (Note). <i>Burrows</i>	37,	283
— — and metallic sulphides, the decomposition of certain minerals and industrial products by means of. <i>Walton and Scholz</i>	39,	771
— phenolate with methyl iodide and ethyl iodide in absolute ethyl alcohol at 25° and 35°, the reactions		

- of. Catalysis. XVII. On the reactions of both the ions and the nonionized forms of electrolytes.
Robertson and Acree..... 49, 474
- phenyl and the action of sodium on ketones, on *Acree*..... 29, 588
- 1-phenyl-3-thiourazole, on the reaction of ethyl iodide with. Catalysis. XIII. *Nirdlinger, Rogers and Acree*..... 49, 116
- phosphate, dehydration of crystals of. *Whitlock and Barfield*..... 22, 214
- potassium sulphites, the supposed isomeric. *Fraps* 23, 202
- sulphate and sodium chloride, solubility of mixtures of. *Seidell*..... 27, 52
- tetraborate, the solubility curve of. *Horn and Van Wagener*..... 30, 344
- Soil, the ammonia-soluble phosphoric acid of the. *Fraps*. 39, 579
- Soils from Saskatchewan, studies on some. *Clark, Gortner and Vail*..... 39, 163
- of the northern portion of the Great Plains region, studies on the:
 The second steppe. *Alway*..... 36, 580
 The third steppe. *Alway and Gortner*..... 37, 1
 The distribution of carbonates on the second steppe. *Alway and McDole*..... 37, 275
 Nitrogen and humus. *Alway and Trumbull*..... 40, 147
- Solids, viscosity and fluidity of matter in the three states of aggregation and the molecular weight of. X. *Bingham*..... 45, 264
- Solubility. *Bingham*..... 37, 549; 38, 91
- determinations with the refractometer, note on. *Getman and Wilson*..... 41, 344
- Solvate theory, the present status of the. XXIII. *Jones* 41, 19
- of solution, new evidence for the—the absorption of light by water changed by the presence of strongly hydrated salts. *Guy, Shaeffer and Jones*..... 49, 265
- Souring of milk, chemical changes in the. *Van Slyke and Hart*..... 32, 145
- Specific heats and heat of vaporization of the paraffin and methylene hydrocarbons, on the. *Mabery and Goldstein*..... 28, 66
- Spectrophotography of certain chemical reactions, and the effect of high temperature on the absorption spectra of nonaqueous solutions, the. The absorption spectra of comparatively rare salts. XXXV. *Jones and Strong*..... 47, 27, 126

Standards in acidimetry, several acids suitable for use as.		
<i>Kastle</i>	44,	487
Standard solutions, on a new method for the preparation of.	<i>Acree and Brunel</i>	36, 117; 36, 611
Starch and dextrin iodides, on the relation of hydriodic acid and of its salts to the.	<i>Hale</i>	28, 438
Stereoisomerism and the law of entropy.	<i>Michael</i>	39, 1
Stereoisomers and racemic compounds.	<i>Cooper</i>	23, 255
Strontium caesium silver and strontium caesium cuprous thiocyanates.	<i>Merriam</i>	28, 274
— — magnesium caesium and calcium caesium thiocyanates, the.	<i>Merriam</i>	28, 266
— silver, calcium silver and barium silver thiocyanates.	<i>Wells and Merriam</i>	28, 269
Substitution, researches on: II. The action of bromine on <i>m</i> -chloro-, <i>m</i> -bromo- and <i>m</i> -iodoanilines.		
<i>Wheeler and Valentine</i>	22,	266
Succinic acid and phthalic acid, preparation of the aniline derivatives of.	<i>Tingle and Cram</i>	37, 596
Succinimide and benzoylbenzimidazole ethyl ester, experiments with silver.	<i>Barnes</i>	23, 148
<i>o</i> -Sulphamidobenzoic acid and <i>o</i> -carbamidobenzenesulphonic acid, a comparative study of.	<i>Wilson</i>	30, 353
— — and related compounds.	<i>Bradshaw</i>	35, 335
<i>m</i> -Sulphamidobenzoic acid under the influence of heat, some transformations of.	<i>Nakaseko</i>	47, 429
<i>p</i> -Sulphamidobenzoic acid, a further study of the products formed by the action of heat on.	<i>Stoddard</i>	47, 1
— — when heated to 220°, a further study of two of the products of the transformation of.	<i>Chamberlain</i>	47, 318
<i>m</i> -Sulphamidobenzoic acids made by different methods, comparative study of the.	<i>Frazer</i>	30, 323
<i>p</i> -Sulphamido- <i>o</i> -toluic acid, action of heat on.	<i>Nowell</i> ..	48, 223
<i>p</i> -Sulphamido- <i>m</i> -toluic acid, a study of the products formed by the action of heat on.	<i>Waters</i>	47, 333
Sulphates of the formula $M'_2M''(SO_4)_2 \cdot 6H_2O$, the solubility of double. The periodic system and the properties of inorganic compounds. IV.	<i>Locke</i> ..	27, 455
— and chlorides, use of the chromates of barium and of silver in the determination of.	<i>Andrews</i> ...	32, 476
Sulphides, the decomposition of certain minerals and industrial products by means of sodium peroxide and metallic.	<i>Walton and Scholz</i>	39, 771
Sulphinic acids, some addition reactions of.	<i>Kohler and Reimer</i>	31, 163

Sulphites to cinnamylidenemalonic acid, the addition of acid. <i>Kohler</i>	31,	243
<i>o</i> -Sulphobenzoic acid, a further investigation of certain derivatives of. <i>Cobb</i> and <i>Fuller</i>	45,	605
— — further investigations on the two isomeric chlorides of. <i>Remsen</i>	30,	247
— — — <i>Cobb</i>	35,	486
— — the action of aliphatic amines on the chlorides of. <i>Clark</i>	30,	277
— — the action of ammonia and of alcohols and alcoholates upon the chlorides of. <i>Bird</i>	30,	262
— — the action of aniline upon the chlorides of. <i>Holmes</i>	30,	273
— — the action of phenol on the chlorides of. <i>Humphreys</i>	30,	292
— and <i>p</i> -nitro- <i>o</i> -sulphobenzoic acids on urea, on the action of the chlorides of. <i>Holmes</i>	25,	202
Sulphocarbanilide on certain acid anhydrides, the action of. <i>Dunlap</i>	21,	528
Sulphocyanates and metallic derivatives of acetoacetic ester and analogous substances, the reaction between aliphatic. <i>Kohler</i>	22,	67
Sulphocyanic acid and its salts by hydrogen peroxide, on the oxidation of. <i>Kastle</i> and <i>Smith</i>	32,	376
Sulphone chlorides on thiourea, on the action of aromatic. <i>Remsen</i> and <i>Turner</i>	25,	190
— — on urea, on the action of aromatic. <i>Remsen</i> and <i>Garner</i>	25,	173
— — and metallic derivatives of ketonic esters, the reaction between. <i>Kohler</i> and <i>MacDonald</i>	22,	227
Sulphonic acids, aliphatic. III. <i>Kohler</i>	21,	349
— — in the free state, on the preparation of certain. <i>Kastle</i>	44,	483
Sulphur, on the rate of crystallization of plastic. <i>Kastle</i> and <i>Kelley</i>	32,	483
— in air and oxygen, the combustion of. <i>Kastle</i> and <i>McHargue</i>	38,	465
— in iron by evolution, a rapid method for the determination of total. <i>Knight</i>	32,	84
— carbon and hydrogen in organic compounds, an electrical method for the simultaneous determination of. <i>Morse</i> and <i>Gray</i>	35,	451
— carbon and hydrogen in organic compounds, notes on the electrical method of Morse and Gray for the simultaneous determination of. <i>Reid</i>	47,	416

Sulphuric and acetic acids, the lowering of the freezing point of aqueous hydrogen dioxide by. <i>Jones and Murray</i>	30,	205
— acid and of chlorosulphonic acid, esters of. <i>Bushong</i>	30,	212
Sunlight upon colorless glass, some effects of. <i>Gortner</i> ...	39,	157
Surface tensions of some unsaturated organic compounds, a study of the. <i>Getman</i>	44,	145
Suspensions of finely-divided solids in liquids, the viscosity and fluidity of. <i>Bingham and Durham</i>	46,	278
"Syn" and "anti" stereoisomerism of nitrogen compounds, the. <i>Stieglitz</i>	40,	36
TARTARIC acid and tartrates, the crystalline appearance of calcium tartrate as a distinctive and delicate test for the presence of. <i>Sullivan and Cramp-ton</i>	36,	419
— ester and sodium ethylate, the action of ethyl iodide on. <i>Bucher</i>	23,	70
Tautomeric change, the catalytic racemization of optically active hydantoin derivatives and related substances as the result of. <i>Dakin</i>	44,	48
— compounds, on the salts of:		
Urazoles. VIII (preliminary paper). <i>Acree</i>	37,	71
Reactions of urazole salts with alkyl halides. Urazoles. XVI. <i>Brunel and Acree</i>	43,	505
— salts of 1,4-diphenyl-5-thionurazole and 1,4-diphenyl-5-thiolurazole, on the rearrangement of the Urazoles. XVII. <i>Nirdlinger and Acree</i>	44,	219
Tautomerism, a contribution to the study of. Urazoles. X. On the constitution of phenylurazole. III. <i>Acree</i>	38,	1
— of phthaleins. III. On the theory of indicators and the reactions of phthaleins and their salts. <i>Acree and Slagle</i>	42,	115
Tellurates and selenates, on the isomorphism of. <i>Norris and Kingman</i>	26,	318
Tellurium, a contribution to the knowledge of. <i>Crane</i> ...	23,	408
— the preparation of pure. <i>Norris, Fay and Edgerly</i>	22,	105
— and antimony, the alloys of. <i>Fay and Ashley</i> ..	27,	95
— and lead, the alloys of. <i>Fay and Gillson</i>	27,	81
— and selenium, on the isomorphism of. <i>Norris and Mommers</i>	23,	486
Temperature, the relation of osmotic pressure to:		
I. The manufacture of the cells employed in the measurements. <i>Morse, Holland, Frazer and Mears</i>	45,	91

- II. The manometers. *Morse, Holland and Carpenter*..... 45, 237
- III. The regulation of temperature. *Morse, Holland and Zies*..... 45, 383
- IV. The membranes. *Morse, Holland and Myers*..... 45, 517
- V. The measurements. *Morse, Holland, Zies, Myers, Clark and Gill*..... 45, 554
- in the measurement of osmotic pressure, the regulation of. *Morse and Holland*..... 41, 92
- on the absorption spectra of nonaqueous solutions, the spectrophotography of certain chemical reactions and the effect of high. The absorption spectra of comparatively rare salts. XXXV. *Jones and Strong*..... 47, 27, 126
- on such spectra, the absorption spectra of various salts in solution and the effect of. *Jones and Strong*..... 43, 37, 97
- and chemical reagents, the absorption spectra of certain salts of cobalt, erbium, neodymium and uranium as affected by. XXXII. *Jones and Strong*..... 45, 1, 113
- and by dilution, the absorption spectra of solutions as affected by. A quantitative study of absorption spectra by means of the radiomicrometer. *Jones and Guy*..... 49, 1
- and dilution on the conductivity of organic acids in aqueous solution, the effect of. *White and Jones*..... 42, 520
- dilution, hydration and hydrolysis, a study of the conductivity, dissociation and temperature coefficients of conductivity of certain inorganic salts in aqueous solution, as conditioned by. *Shaeffer and Jones*..... 49, 207
- dilution and hydrolysis, the conductivity and ionization of electrolytes in aqueous solutions as conditioned by. *Jones and Jacobson*..... 40, 355
- coefficients of conductivity between 35° and 80° of solutions of a number of salts and organic acids, the conductivities, dissociations and. *Clover and Jones*..... 43, 187
- — of conductivity of aqueous solutions, the bearing of hydrates on the. *Jones*..... 35, 445
- — of conductivity in aqueous solutions and on the effect of temperature on dissociation, a study of the. *Jones and West*..... 34, 357
- — of conductivity, conductivity and dissociation at 35°, 50° and 65° of aqueous solutions of a number of salts, the. *West and Jones*..... 44, 508

— — — of conductivity, conductivity and dissociation of certain electrolytes in aqueous solution at 35°, 50° and 65°, the. <i>Howard and Jones</i>	48,	500
— — — of conductivity, conductivity and dissociation of certain inorganic salts in aqueous solution, as conditioned by temperature, dilution, hydration and hydrolysis, a study of the. <i>Shaeffer and Jones</i>	49,	207
— — — of conductivity, conductivity, dissociation and dissociation constants of certain organic acids between 0° and 65°. XIV. <i>Smith and Jones</i>	50,	1
— — — of conductivity, dissociation and conductivities of certain electrolytes, the. <i>Hosford and Jones</i>	46,	240
— — — of conductivity, dissociation and conductivity of certain electrolytes in aqueous solution between 0° and 35°, the. Probable inductive action in solution, and evidence for the complexity of the ion. <i>Winston and Jones</i>	46,	368
Terpenes obtained from individual samples of the resin, Manila <i>elemi</i> , the. <i>Clover</i>	39,	613
Tetrabromo- <i>o</i> -benzoquinone, on certain derivatives of. <i>Jackson and Carlton</i>	34,	422
<i>Jackson and Russe</i>	35,	154
— — — on the action of aniline upon. <i>Jackson and Porter</i>	30,	518
— — — on the constitution of the α - and β -addition compounds of alcohols and. <i>Jackson and MacLaurin</i>	37,	87
— — — the action of sodium hydroxide on. <i>Jackson and Fiske</i>	50,	341
Tetrachloroanthranilic and tetrachlorophthalic acids, octochloroindigo and some derivatives of. <i>Orndorff and Nichols</i>	48,	473
Tetrachloro- <i>o</i> -benzoquinone, on certain derivatives of. <i>Jackson and MacLaurin</i>	37, 7; 38,	127
<i>Jackson and Carleton</i>	39,	493
<i>Jackson and Kelley</i>	47,	197
Tetrachlorogallein and some of its derivatives. <i>Orndorff and Delbridge</i>	42, 183; 46,	1
Tetrachlorophthalic acid. <i>Delbridge</i>	41,	393
— — — the hydrazine derivatives of. <i>Phelps</i> ...	33,	586
— — — and tetrachloroanthranilic acids, octochloroindigo and some derivatives of. <i>Orndorff and Nichols</i>	48,	473
Tetramethylammonium and with the aliphatic amines, some double halides of tin with. <i>Cook</i>	22,	435
— — — and the methylamines, some double halides of cadmium with. <i>Ragland</i>	22,	417

Tin with the aliphatic amines and with tetramethyl-ammonium, some double halides of. <i>Cook</i>	22,	435
— with the organic bases, notes on the double halides of. <i>Richardson</i> and <i>Adams</i>	22,	446
Thallic thalious nitrate. <i>Metzger</i>	26,	277
Thallium and caesium, on some double sulphates of thallic. <i>Locke</i>	27,	280
— and the constitution of double salts, on some isomeric halogen compounds of. I. <i>Cushman</i> ...	24,	222
— and the constitution of double salts, on some complex compounds of. <i>Cushman</i>	26,	505
Thalious caesium thiocyanate, $\text{CsTl}_4(\text{SCN})_6$. <i>Wells</i>	28,	270
— thallic nitrate. <i>Metzger</i>	26,	277
Thiolbenzoic acid by alcohol and of benzoic acid by mercaptan, the esterification of. Studies in esterification. <i>Reid</i>	43,	489
Thermal effects of the dilution of some salts. <i>Dunnington</i> and <i>Hoggard</i>	22,	207
Thioamides. IV. The action of hydrogen sulphide on nitrogen-substituted aminoacetonitriles. <i>Johnson</i> and <i>Burnham</i>	47,	232
2-Thiobarbituryl- and barbituryl-5-acetic acids. Researches on pyrimidines. LIX. <i>Johnson</i> and <i>Kohmann</i>	49,	184
Thiocyanates, on some double and triple. <i>Wells</i>	28,	245
— on α -amino acids, the action of. Hydantoins. <i>Johnson</i>	49,	68
— and isothiocyanates, researches on: <i>Wheeler</i>	26,	345
VII. Diphenylcarbamyl thiocyanate. <i>Johnson</i> and <i>Levy</i>	38,	456
VIII. A new class of isothiocyanates. Isothiocyano ethers. <i>Johnson</i> and <i>Guest</i>	41,	337
Thiocyanoacetanilides into labile pseudothiohydantoins, on the molecular rearrangement of; and on the molecular rearrangement of the latter into stable isomers. <i>Wheeler</i> and <i>Johnson</i>	28,	121
Thioglycolide compounds and their behavior on reduction, the oximes of. Researches on pyrimidines. LVIII. <i>Johnson</i> and <i>Moran</i>	48,	307
2-Thiohydantoin. On hydantoins. VI. The action of acylthioncarbamates, acyldithiocarbamates and acylimidodithiocarbonates on α -amino acids. <i>Wheeler</i> , <i>Nicolet</i> and <i>Johnson</i>	46,	456
2-Thiohydantoin-4-propionic acid. The action of potas-		

sium thiocyanate on pyrrolidinecarboxylic acid.		
Hydantoins. X. <i>Johnson and Guest</i>	47,	242
Thioncarbamic esters, on the molecular rearrangement of disubstituted: phenylimidothiocarbonic acid derivatives and thiosemicarbazidic esters. <i>Wheeler and Dustin</i>	24,	424
— on the rearrangement of the. <i>Wheeler and Barnes</i>	22,	141
Thioncarbamic, thioncarbanilic and thioncarbazinic esters, on the molecular rearrangement of the: β -alkyl- α,μ -diketotetrahydrothiazoles. <i>Wheeler and Barnes</i>	24,	60
Thiophenol, a new reducing agent for the preparation of. <i>Winter</i>	31,	572
Thiosemicarbazidic esters and phenylimidothiocarbonic acid derivatives: on the molecular rearrangement of disubstituted thioncarbamic esters. <i>Wheeler and Dustin</i>	24,	424
Thiourea, on the action of aromatic sulphone chlorides on. <i>Remsen and Turner</i>	25,	190
— and ammonium sulphocyanate as sources of nitrogen to fungi and microorganisms. <i>Kastle and Elvove</i>	31,	550
— with esters of allylmalonic acid and some alkyl-substituted allylmalonic acids, on the condensation of. Researches on pyrimidines. I. <i>Johnson and Hill</i>	45,	356
Thymine and the preparation of thymine, the thio derivatives of. Researches on pyrimidines. XLIX. <i>Wheeler and McFarland</i>	43,	19
— and uracil, syntheses of some benzyl derivatives of. Researches on pyrimidines. XXXVIII. <i>Johnson and Derby</i>	40,	444
— uracil and similar compounds, synthesis of: on some condensation products of the pseudothioureas. <i>Wheeler and Merriam</i>	29,	478
Thymine-5'-carboxylic acid, synthesis of. Researches on pyrimidines. XXVII. <i>Johnson and Speh</i>	38,	602
Thymol, solubility and distribution coefficients of. <i>Seidell</i>	48,	453
— salicylates and similar compounds, a new bromine method for the determination of. <i>Seidell</i>	47,	508
<i>p</i> -Tolenyrimido methyl ester, β -naphthylimido ethyl ester and furimido methyl ester, experiments with. <i>Atwater</i>	23,	145

<i>o</i> -Tolidine and from benzidine, action of alcohols on the tetrazonium chlorides derived from. <i>Winston</i> . . .	31,	119
Toluene on iodine derivatives of. <i>Wheeler, Brautlecht</i> and <i>Hoffman</i>	44,	493
<i>p</i> -Toluenediazonium sulphate and of the action of sulphuric acid on the methyl ether of <i>p</i> -cresol, a further investigation of. <i>Alleman</i>	31,	24
Toluides, identification of organic acids by their. <i>Scudder</i>	29,	511
<i>o</i> -Toluidine, iodine derivatives of. The amino-3-iodobenzoic acids. Researches on aminohalogen acids. VII. <i>Wheeler and Liddle</i>	42,	498
<i>m</i> -Toluidine, on the action of iodine on. <i>Wheeler, Brautlecht, Hoffman</i> and <i>Scholes</i>	44,	126
<i>p</i> -Toluidine, iodine derivatives of: 4-amino-3,5-diiodobenzoic acid. Researches on aminohalogen acids. VI. <i>Wheeler and Liddle</i>	42,	441
Toluidines and aniline, the double halides of antimony with the. <i>Higbee</i>	23,	150
Toluquinone oxime ethers, notes on the space isomerism of the. <i>Morgan</i>	22,	402
<i>m</i> -Tolyl ether and derivatives. <i>Cook</i>	36,	543
β - <i>p</i> -Tolylglutaric acid. <i>Avery</i> and <i>Parmelee</i>	28,	49
Toxic action of powerful oxidizing and reducing substances and oxidation and reduction in the animal organism, the. <i>Kastle and Elvove</i>	31,	195
Transition temperatures, the determination of. <i>Horn</i> . .	37,	619
Triacetylglucose by enzymes, hydrolysis of. <i>Acree</i> and <i>Hinkins</i>	28,	370
Tribromobenzene, on certain nitro derivatives of the vicinal. <i>Jackson</i> and <i>Fiske</i>	30,	53
Tribromophenol bromide, a study of. <i>Kastle</i>	27,	31
— — — preparation and properties of. Conduct of tribromophenol bromide towards heat and light. Action of tribromophenol bromide on water, potassium iodide and zinc ethyl. Behavior of tribromophenol bromide towards bromine and iodine. <i>Loevenhart</i>	27,	32
— — — the constitution of. Preparation and properties of tribromophenyl sulphonate. The conversion of tribromophenol bromide into <i>m</i> -dibromoquinone. <i>Speyer</i>	27,	40
— — — by means of sulphuric acid, on the molecular rearrangement of. <i>Gilbert</i>	27,	43
Tribromophenyl sulphonate, the preparation and properties of. The conversion of tribromophenol		

bromide into <i>m</i> -dibromoquinone. The constitution of tribromophenol bromide. <i>Speyer</i>	27,	40
Trichlorobenzene, on certain derivatives of symmetrical. <i>Jackson and Gazzolo</i>	22,	54
Triethylamine towards oxidizing agents, on the behavior of. <i>Dar Juan</i>	43,	1
Triiodobenzene, symmetrical. <i>Jackson and Behr</i>	26,	55
Trimethylene and ethylene cyanides, on the condensation of oxalic ethyl ester with. <i>Michael</i>	30,	156
Trimethylparaconic acid, derivatives of. Camphoric acid. XIV. <i>Noyes</i>	33,	356
— — — synthesis of. Camphoric acid. XII. <i>Noyes and Patterson</i>	28,	228
Trinitrophenylmalonic ester. II. <i>Jackson and Phinney</i> .	21,	418
Trinitrotribromobenzene and trinitrodibromobenzene, on the action of sodium sulphite on. <i>Jackson and Earle</i>	26,	46
Trinitrotrichlorobenzene, on certain derivatives of. <i>Jackson and Smith</i>	32,	168
Triphenylchloromethane, on. <i>Norris and Sanders</i>	25,	54
— the action of zinc on. <i>Norris and Culver</i>	29,	129
<i>Gomberg</i>	29,	364
<i>Norris</i>	29,	609
Triphenylindene and some of its derivatives. <i>Kohler</i> ...	40,	217
Triphenylmethane, on the preparation of. <i>Norris and MacLeod</i>	26,	499
Triple and double salts of caesium nitrite with the nitrites of silver, the alkali earths and lead, on some. <i>Jamieson</i>	38,	614
— and double thiocyanates, on some. <i>Wells</i>	28,	245
— and double thiocyanates of caesium, cadmium and silver, on the. <i>Wells</i>	30,	144
— and double thiocyanates of caesium, cobalt and silver, on. <i>Shinn and Wells</i>	29,	474
Triticonucleic acid, on cytosine or 2-oxy-6-aminopyrimidine from. <i>Wheeler and Johnson</i>	29,	505
Tungsten, researches on the oxides of. <i>Allen and Gottschalk</i>	27,	328
Tyrosine and of phenylalanine, a synthesis of. On hydantoin. I. <i>Wheeler and Hoffman</i>	45,	368
Tyrosinehydantoin, the action of bromine on. On hydantoin. VIII. <i>Johnson and Hoffman</i>	47,	20
UNDECYLAMINE and pentadecylamine and the preparation of the higher amines of the aliphatic series, on <i>Jeffreys</i>	22,	14

Undercooled water as measured in a new viscosimeter, the viscosity of. <i>White and Twining</i>	50,	380
Unsaturated acids, the Friedel and Crafts reaction with chlorides of. <i>Kohler, Burnley and Heritage</i>	44,	60
— compounds, on the addition of hydrocyanic acid to. <i>Cobb</i>	45,	604
— — and organic magnesium compounds, the reaction between:		
I. Reactions of unsaturated aldehydes and unsaturated ketones. <i>Kohler</i>	31,	642
II. Reactions with derivatives of cinnamic acid. <i>Kohler and Heritage</i>	33,	21
III. Reactions with compounds containing bromine. <i>Kohler and Johnston</i>	33,	35
IV. Reactions with esters of α -phenylcinnamic acid. <i>Kohler and Heritage</i>	33,	153
V. Reactions with α -cyanocinnamic acid. <i>Kohler and Reimer</i>	33,	333
VI. Reactions with ethyl benzalmalonate. <i>Kohler</i>	34,	132
VII. Complex products from cinnamic esters. <i>Kohler and Heritage</i>	34,	568
VIII. Reactions with α,β -unsaturated nitriles. <i>Kohler</i>	35,	386
IX. Reactions with stereoisomers. <i>Kohler</i>	36,	177
X. Reactions with α -methylcinnamic acid. <i>Kohler</i>	36,	529
XI. Cyclic ketones. <i>Kohler</i>	37,	369
XII. Aldehydes and ketones. <i>Kohler</i>	38,	511
XIII. Derivatives of cyclohexane. <i>Kohler and Burnley</i>	43,	412
— — and organic zinc compounds, the reaction between. <i>Kohler and Heritage</i>	43,	475
<i>Kohler, Heritage and Macleod</i>	46,	217
— — containing alkoxyl groups and organic magnesium compounds, the reaction between. <i>Reynolds</i>	44,	305
— organic compounds, a study of the surface tensions of some. <i>Getman</i>	44,	145
Uracil and the preparation of uracil in quantity, the thio derivatives of. Researches on pyrimidines. XL. <i>Wheeler and Liddle</i>	40,	547
— and thymine, syntheses of some benzyl derivatives of. Researches on pyrimidines. XXXVIII. <i>Johnson and Derby</i>	40,	444
— thymine and similar compounds, synthesis of: on some condensation products of the pseudothio-ureas. <i>Wheeler and Merriam</i>	29,	478

Uracil-4-carboxylic acid. Researches on pyrimidines. XXIII. <i>Wheeler</i>	38,	358
Uracil-5-carboxylic acid, synthesis of. Researches on pyrimidines. XIX. <i>Wheeler, Johnson and Johns</i>	37,	392
Uramido and semicarbazino acids with sodium alcoholate, ring condensations of the esters of. <i>Bailey</i>	28,	386
Uranium, cobalt, erbium and neodymium as affected by temperature and by chemical reagents, the absorption spectra of certain salts of. XXXII. <i>Jones and Strong</i>	45,	I, 113
Urazole and imidothiazoline derivatives, on some. <i>Wheeler and Stairopoulos</i>	34,	117
Urazoles:		
VIII. On the salts of tautomeric compounds (preliminary paper). <i>Acree</i>	37,	71
IX. On some semicarbazide derivatives of isopropionic acid, benzoic acid and benzenesulphonic acid. <i>Acree</i>	37,	361
X. On the constitution of phenylurazole. III. A contribution to the study of tautomerism. <i>Acree</i>	38,	I
XI. On the affinity constants and constitution of several urazoles. <i>Acree and Shadinger</i>	39,	124
XII. On the velocity constants and mechanism of the reactions of alkyl halides with urazoles and urazole salts. <i>Acree and Shadinger</i>	39,	226
XV. On the reactions of diazoalkyls with 2-methyl-1-phenylurazole. <i>Nirdlinger and Acree</i>	43,	358
XVI. On the salts of tautomeric compounds: reactions of urazole salts with alkyl halides. <i>Brunel and Acree</i>	43,	505
XVII. On the rearrangement of the tautomeric salts of 1,4-diphenyl-5-thionurazole and 1,4-diphenyl-5-thiolurazole. <i>Nirdlinger and Acree</i>	44,	219
Urazole series, a note on some of the reactions in the. <i>Acree</i>	31,	185
Urea, on the action of aromatic sulphone chlorides on. <i>Remsen and Garner</i>	25,	173
— on the action of the chlorides of <i>o</i> -sulphobenzoic and of <i>p</i> -nitro- <i>o</i> -sulphobenzoic acids on. <i>Holmes</i> ...	25,	202
— and guanidine with the esters of allylmalonic and some alkyl-substituted allylmalonic acids, the condensation of. Researches on pyrimidines. LIV. <i>Johnson and Hill</i>	46,	537
— whereby a dichlorourea is produced, the action of chlorine upon. <i>Chattaway</i>	41,	83
Ureapyrimidines, on the formation of purines from. Re-		

- searches on pyrimidines. XVI. *Johnson and McCollum*..... 36, 149
- Ureas, on the oxygen ethers of the: methyl- and ethylisoureas. *McKee*..... 26, 209
- Ureides and cyanoamides of the dialkylhydroxyacetic acids. *Clemmensen and Heitman*..... 40, 280
- and cyanoamides of the hydroxy fatty acids. II. *Clemmensen and Heitman*..... 42, 319
- VACUA, a chemical method for obtaining. *Benedict and Manning*..... 27, 340
- Vacuum distillation, an apparatus for continuous. *Mabery* 29, 171
- pump, a modification of the Bunsen. *Ittner*... 24, 253
- Valence, applications of the electronic conception of. I. Reactions among certain classes of compounds containing nitrogen. II. The Beckmann rearrangement. *Jones*..... 50, 414
- Vanadic acid as silver vanadate and the estimation of phosphoric and vanadic acids in the presence of one another, the precipitation of. *Edgar*..... 44, 467
- Vanillin, the action of nitric acid on. *Bentley*..... 24, 171
- Vaporization of the paraffin and methylene hydrocarbons, on the specific heats and heat of. *Mabery and Goldstein*..... 28, 66
- to other constants at the boiling temperature of some liquids at atmospheric pressure, the relation of heat of. *Montgomery*..... 46, 298
- Vapor pressure and fluidity. XIII. *Bingham*..... 47, 185
- Vaselin, cosmolin and similar products, composition of commercial. *Mabery*..... 33, 291
- Velocities of ions, a new apparatus for determining the relative; with some results for silver ions. *Mather*... 26, 473
- of the ions of silver nitrate in mixtures of the alcohols and water and on the conductivity of such mixtures, determination of the relative. *Jones and Bassett*..... 32, 409
- Velocity and ionic hydration, ionic. I. *Carroll*..... 36, 594
- coefficients of the reaction between ethyl iodide and silver nitrate in ethyl and methyl alcohols and mixtures of these solvents. *Pearce and Weigle*... 48, 243
- Vinyl phenyl ketone and some of its homologues. *Kohler* 42, 375
- Viscosimeter, the viscosity of undercooled water as measured in a new. *White and Twining*..... 50, 380
- Viscosity which results when the alcohols are mixed with water and of the negative viscosity coefficients of certain salts when dissolved in water, a possible

explanation of the increase in. VII. <i>Jones and Veazey</i>	37,	405
— and conductivity, relation between—a study of the conductivities of certain electrolytes in water, methyl and ethyl alcohols and mixtures of these solvents. <i>Jones and Carroll</i>	32,	521
— and conductivity in mixed solvents containing glycerol. <i>Schmidt and Jones</i>	42,	37
<i>Guy and Jones</i>	46,	131
— and conductivity of solutions of certain salts in mixtures of acetone with methyl alcohol, with ethyl alcohol and water, the. <i>Jones and Bingham</i>	34,	481
— and conductivity of solutions of certain salts in water, methyl alcohol, ethyl alcohol, acetone and binary mixtures of these solvents, the. V. <i>Jones and McMaster</i>	36,	325
— and fluidity. <i>Bingham</i>	35, 195; 40, 277; 43,	287
— and fluidity of matter in the three states of aggregation and the molecular weight of solids. X. <i>Bingham</i>	45,	264
— and fluidity of suspensions of finely-divided solids in liquids, the. <i>Bingham and Durham</i>	46,	278
— and fluidity of these mixtures, the conductivity of solutions of lithium nitrate in ternary mixtures of acetone, methyl alcohol, ethyl alcohol and water, together with the. X. <i>Jones and Mahin</i>	41,	433
WATER of crystallization as affected by light. I. <i>McKee and Berkheiser</i>	40,	303
— gas, a simple apparatus for demonstrating the manufacture of. <i>Waters</i>	27,	139
Wheat bran, the nature of the principal phosphorus compound in. <i>Patten and Hart</i>	31,	564
Wiping, a method for purifying and drying organic liquids by. <i>Jackson and Fiske</i>	44,	438
Wood oil, the composition of a. <i>Fraps</i>	25,	26
Wurtz, Conrad and Frankland reactions, a criticism of J. U. Nef's views on the; on methyl cyanide as a catalytic reagent. <i>Michael</i>	25,	419
XANTHINE, on an isomer of; 2,8-dioxypurine. Researches on purines. II. <i>Johns</i>	45,	79
ZINC, on the action of dry hydrochloric acid gas dissolved in anhydrous benzene on dry. <i>Falk and Waters</i> ..	31,	398
— in alcoholic solutions of zinc chloride, potentials of. <i>Getman and Gibbons</i>	48,	124

— in ethyl alcohol, the solution tension of. <i>Jones and Smith</i>	23,	397
— on benzoyl chloride, the action of. <i>Norris and Franklin</i>	29,	141
— on triphenylchloromethane, the action of. <i>Norris and Culver</i>	29,	129
<i>Gomberg</i>	29,	364
<i>Norris</i>	29,	609
— manganese and cobalt, the use of potassium periodate in the detection of. <i>Benedict</i>	34,	581
— caesium and zinc silver thiocyanates, the. <i>Wells</i>	28,	268
— chloride, the specific gravity of. <i>Baxter and Lamb</i>	31,	229
— compounds and unsaturated compounds, the reaction between. <i>Kohler and Heritage</i>	43,	475
<i>Kohler, Heritage and Macleod</i>	46,	217
Zinc-copper couple for preparing zinc ethyl, on the (Note). <i>Noyes</i>	24,	467
Zinc ethyl, on the zinc-copper couple for preparing (Note). <i>Noyes</i>	24,	467
— — the preparation of. <i>Lachman</i>	24,	31
— silver caesium thiocyanates, the. <i>Wells</i>	28,	278
— sulphate and copper sulphate, on the mixed crystals of. <i>Foot</i>	26,	418

102
GENERAL INDEX

OF VOLUMES XXI-L

OF THE

AMERICAN
CHEMICAL JOURNAL

1899-1913

CHARLES A. ROUILLER
Assistant Editor

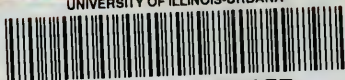
BALTIMORE

1914

ESCHENBACH PRINTING COMPANY, PRINTERS.
EASTON, PA.



UNIVERSITY OF ILLINOIS-URBANA



3 0112 059563657